

Journal  
of the Fisheries  
Research  
Board  
of Canada

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du Canada

Volume 36, Index 1979



Government of Canada  
Fisheries and Oceans

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## Volume 36, Index 1979

The *Journal of the Fisheries Research Board of Canada* has been published continuously since 1901, previously as *Contributions to Canadian Biology* 1901-25, *Contributions to Canadian Biology and Fisheries* 1926-34, and *Journal of the Biological Board of Canada*, 1934-37.

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Volume 36, Index 1979

INDEX TO PUBLICATIONS FOR 1979<sup>1</sup>

In 1968 the Fisheries Research Board of Canada published Bulletin 164, a subject-author index and list of publications to 1964. Miscellaneous Special Publication 18, covering the period 1965-72, was published in 1973. Since 1973 an annual subject-author index has been published as a separate issue of the *Journal*. The index also contained a list of all articles, in all series of publications.

The 1979 index contains a subject index, author index and list of publications. All entries in the subject index are made up of an entry term plus a number of modifying terms (not exceeding three), plus a taxonomic name (omitted where the taxon is the entry term), or common name (omitted where the common name is the entry term), and a geographic entry (also omitted where the geographic area is the entry term). The entry term and modifying terms are selected from the controlled vocabulary wherever possible (*Thesaurus of Terms for Aquatic Sciences and Fisheries*, FAO Fish. Circ. 344), but in some cases it is necessary to use "free terms" (i.e. uncontrolled terms of not more than 50 characters) to adequately convey the subject concept. It is possible for these free terms to appear in any modifying position but never as entry terms.

<sup>1</sup>Prepared under contract by the Huntsman Marine Laboratory.

Printed in Canada

INDEX DES PUBLICATIONS POUR 1979<sup>1</sup>

En 1968, l'Office des recherches sur les pêcheries du Canada publiait le Bulletin n° 164 qui constituait un index des matières et des auteurs, ainsi qu'une liste des Publications, antérieures à 1965. Le n° 18 des Publications diverses spéciales, visant la période de 1965 à 1972, a paru en 1973. Depuis 1973, on publie annuellement un index des matières et des auteurs comme numéro distinct du *Journal*. Cet index comprend aussi une énumération des articles ayant paru dans toutes les séries de publications.

L'index pour 1979 comprend un répertoire des matières et des auteurs et une liste des publications. Toutes les notices de l'index des matières sont composées d'un terme d'entrée et d'au plus trois termes modificatifs, ainsi que d'une désignation taxonomique (sauf si celle-ci constitue le terme d'entrée), ou d'une appellation courante (sauf si celle-ci est le terme d'entrée) et d'une inscription géographique (omise si la région géographique est le terme d'entrée). Dans la mesure du possible, le terme d'entrée et les termes modificatifs sont choisis suivant le vocabulaire contrôlé (*Thesaurus of Terms for Aquatic Sciences and Fisheries*, FAO Fish. Circ. 344), mais dans certains cas il est nécessaire d'employer des "termes libres" (termes non contrôlés de 50 caractères ou moins) pour exprimer convenablement le sujet traité. Les termes libres peuvent servir de termes modificatifs mais jamais de termes d'entrée.

<sup>1</sup>Établi à forfait par le Laboratoire Huntsman des sciences marines.

Imprimé au Canada

#### ABBREVIATIONS USED IN INDEX

(The designation (F) in the index indicates the article referred to was published in French, and (R) indicates the article was reprinted in 1978.)

J - Journal of the Fisheries Research Board of Canada

MSP - Miscellaneous Special Publication

B - Bulletin

T - Technical Report

M - Manuscript Report

D - Data Report

I - Industry Report

S - Studies

A - Interpretive Article

CHN - Circular of Halifax Laboratory

The Provinces and Territories of Canada are abbreviated to:

Alta.	(Alberta)	N.W.T.	(Northwest Territories)
B.C.	(British Columbia)	Ont.	(Ontario)
Man.	(Manitoba)	P.E.I.	(Prince Edward Island)
N.B.	(New Brunswick)	Que.	(Quebec)
Nfld.	(Newfoundland)	Sask.	(Saskatchewan)
N.S.	(Nova Scotia)	Y.T.	(Yukon Territory)

Certain geographical areas (particularly oceans) have their major subdivisions designated by N(north), S(south), E(east), W(west), NW(northwest), etc., also Atl.(Atlantic), Pac.(Pacific).

Certain international commissions are commonly referred to as: ICNAF(International Commission for the Northwest Atlantic Fisheries); INPFC(International North Pacific Fisheries Commission).

Scientific names, common names, and their spellings for the Canadian and American marine fishes taken within 200-m depth and for freshwater fishes are indexed according to the nomenclature recommended in *A List of Common and Scientific Names of Fishes from the United States and Canada* (Third Edition, 1970), Special Publication No. 6 of the American Fisheries Society. Where authors have used names or spellings not conforming to those recommended, index headings for such names are included, referring to the recommended ones under which the subject entries will be found.



# ABREVIATIONS EN USAGE DANS L'INDEX

(La désignation (F) dans l'index signifie que l'article dont il est question a été publié en français et la désignation (R) signifie que l'article a été réimprimé en 1978.)

- J - Journal de l'Office des recherches sur les pêcheries du Canada
- MSP - Publications diverses spéciales
- B - Bulletin
- T - Rapports techniques
- M - Rapports manuscrits
- D - Rapports statistiques
- I - Rapports à l'industrie
- S - Etudes
- A - Articles explicatifs
- CHN - Circulaire du laboratoire d'Halifax

Les provinces et territoires du Canada sont abrégés comme suit:

Alta.	(Alberta)	N.W.T.	(Territoires du Nord-Ouest)
B.C.	(Colombie-Britannique)	Ont.	(Ontario)
Man.	(Manitoba)	P.E.I.	(Île-du-Prince-Édouard)
N.B.	(Nouveau-Brunswick)	Que.	(Québec)
Nfld.	(Terre-Neuve)	Sask.	(Saskatchewan)
N.S.	(Nouvelle-Écosse)	Y.T.	(Territoire du Yukon)

Certaines régions géographiques (surtout les océans) ont leur principales subdivisions indiquées de la façon suivante: N(nord), S(sud), E(est), W(ouest), NW(nord-ouest), ainsi que Atl.(Atlantique), Pac.(Pacifique).

On désigne communément certaines commissions internationales de la façon suivante: ICNAF(Commission internationale des pêcheries de l'Atlantique nord-ouest), INPFC(Commission internationale des pêcheries du Pacifique nord).

Les désignations scientifiques, les noms communs et l'orthographe des poissons marins canadiens et américains, pris en deçà de 200 m de profondeur, ainsi que les poissons d'eau douce sont indexés conformément aux recommandations de l'ouvrage *A List of Common and Scientific Names of Fishes from the United States and Canada* (troisième édition, 1970), Publication spéciale n° 6 de l'American Fisheries Society. Quand un auteur utilise des désignations différentes des formes recommandées, on inclut des rubriques renvoyant à ces dernières, sous lesquelles on trouve les notices.

# LIST OF ESTABLISHMENTS

The number in front of each address corresponds to the number shown at the end of titles in some of the listed series of publications to indicate from which establishment the publication or report originated.

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Le chiffre placé devant chaque adresse correspond à celui qui figure à la fin des titres de certaines des séries de publications énumérées, pour indiquer soit l'établissement d'où provient la publication ou le rapport.

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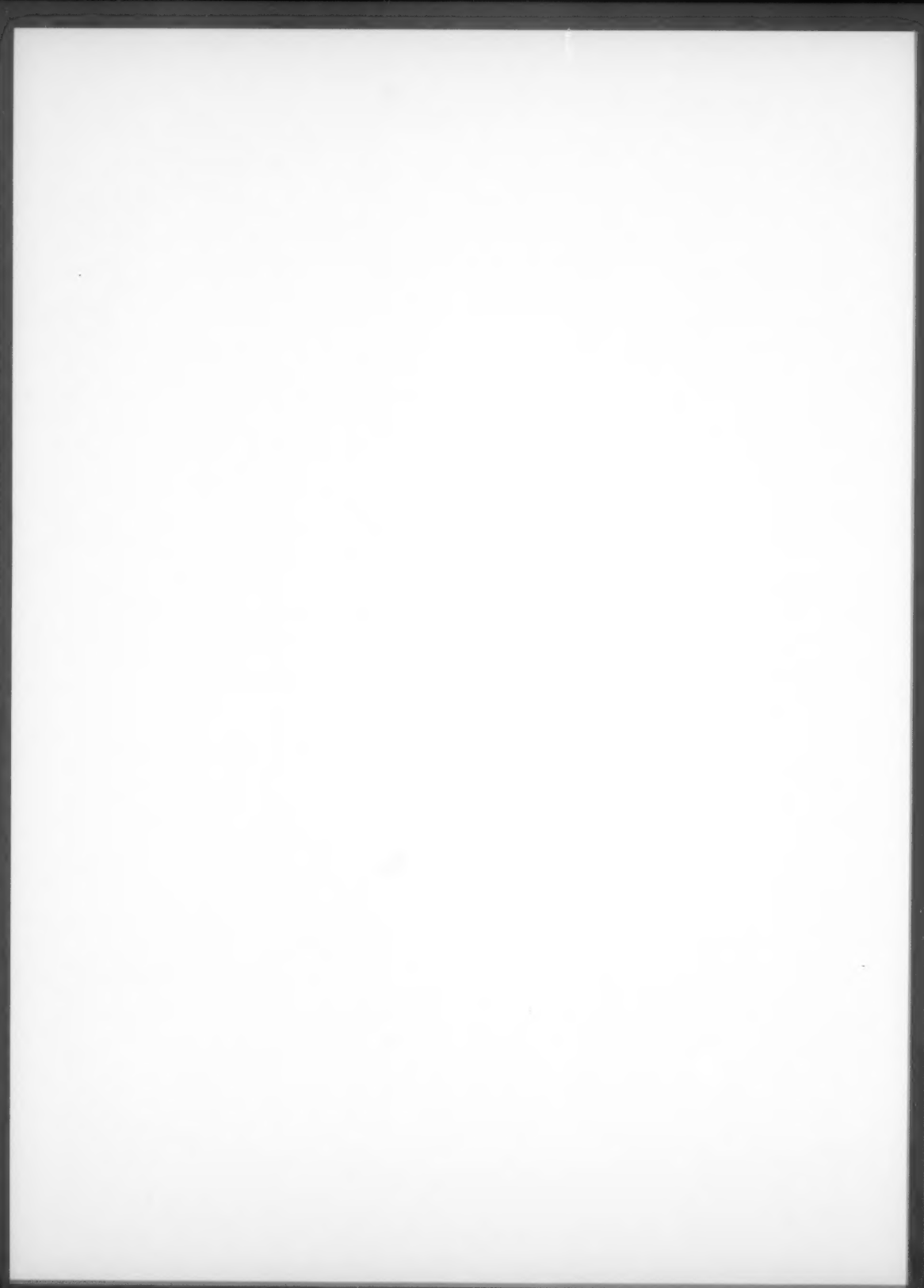
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 2581 (fishery management, research programs, Atl. coast)  
 2606 (vertical distribution, mathematical models, zooplankton, NE Atl.)  
 2608 (ecological niches, Cetacea, NW Atl.)
- ATP  
 J 36(2): 180 (carbon, phytoplankton, St. Lawrence R. estuary)  
 (11): 1347 (gill ATP, temperature effects, photoperiodicity, chinook salmon)  
 D 108 (water reservoirs, Southern Indian L., Man.)
- Australia  
 J 36(4): 351 (random sampling, macrobenthos, Western Port, Victoria)  
 (7): 789 (fishery economics, fishery management, limited entry, rock lobster, prawns, Western Australia)  
 (11): 1304 (prawn fishery, bioeconomic model, Gulf of Carpentaria)
- Autolysis  
 S 2552 (*Chroomonas salina*, cryptomonad starch)
- B
- Babine Lake, B.C.  
 T 717 (orientation behavior, migrations, subpopulation, sockeye salmon)  
 812 (fishery management, biological production, rearing, sockeye salmon)  
 847 (copper, toxicity, sockeye salmon)  
 M 1494 (water quality, environmental surveys, pollution monitoring)
- Bacillariophyceae (see Diatoms)
- Bacteria  
 J 36(8): 922 (fibrils, colloids, lakes, Canada)  
 (9): 1102 (furunculosis, serological studies, Atlantic salmon)

- (10): 1174 (anaerobic, digestive system, grass carp, goldfish, rainbow trout)
- (12): 1508 (biochemistry, *Edwardsiella*, channel catfish)
- M 1515 (heterotrophy, S Davis Strait)
- D 86 (pollution monitoring, Atlantic oyster, Maritime Provinces 1977)
- 123 (pollution monitoring, Atlantic oyster, Maritime Provinces 1978)
- S 2558 (taxonomy, biochemical analysis, oligosaccharides, *Aeromonas*)
- Bacterial diseases (see Diseases; Disease control)
- Bacterioides
- S 2559 (sewage, seawater, St. John's Harbour, Nfld.)
- Balaena mysticetus* (see Whale, bowhead)
- Balaenoptera acutorostrata* (see Whale, minke)
- borealis* (see Whale, sei)
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- physalus* (see Whale, finback)
- Baleen whales (see Whales)
- Bass, striped (*Morone saxatilis*)
- J 36(1) : 54 (catch statistics, population structure, time series analysis, NW Atl.)
- (9) : 1108 (entrainment, chlorine, temperature effects)
- M 1532 (sport fishing statistics, biological surveys, Shubenacadie, Gaspereau, Annapolis rivers, N.S.)
- Bay of... (see name of bay)
- Bear, polar (*Ursus maritimus*)
- T 837 (aerial surveys, population density, Cornwallis I., N.W.T.)
- Bedford Basin, N.S.
- J 36(2) : 211 (suspended matter)
- D 93 (primary production, experimental data, nutrients)
- S 2600 (hydrocarbons, origin, seasonal variations)
- Behavior (see also Feeding behavior; also Orientation behavior; also Spawning; Spawning behavior)
- J 36(1) : 11 (avoidance response, recording equipment, aquatic organisms)
- (9) : 1080 (social behavior, dispersion, freshwater prawn)
- (10): 1186 (homing behavior, olfaction, morpholine, rainbow trout)
- T 831 (avoidance, pollution effects, salinity effects, pink salmon)
- S 2529 (locomotion, recording equipment, pink salmon)
- 2593 (entrapment, baleen whales, E Canada)
- Beluga (*Delphinapterus leucas*) (see Whale, white)
- Benthos
- J 36(4) : 351 (random sampling, macrobenthos, Western Port, Victoria, Australia)
- (6) : 667 (environmental effects, storms, hurricanes, Minas Basin, Bay of Fundy)
- (6) : 673 (sediment analysis, tubificids, Ont.)
- (9) : 1089 (invertebrates, pollution effects, coal ash, Savannah R., N.C.)
- (10): 1197 (tidal energy, environmental effects, sublittoral zone, Bay of Fundy)
- (11): 1377 (metabolism, oxygen, carbon dioxide, Dunham Pond, Conn.)
- (12): 1425 (secondary production, life history, invertebrates)
- (12): 1454 (biological sampling, population density, data processing)
- M 1481 (biological data, Mackenzie R., N.W.T.)
- 1488 (check lists, biological surveys, invertebrates, Strait of Georgia, B.C.)
- 1501 (trenching, mudflats, Roberts Bank, Fraser R. delta, B.C.)
- 1519 (vertical distribution, population number, invertebrates, L. Ontario)
- D 149 (population density, intertidal environment, Nanaimo R., Vancouver I., B.C.)
- S 2543 (macrobenthos, invertebrates, sedimentation, Harris R., N.W.T.)
- Bibliographies
- T 790 (sampling, zoobenthos)
- 799 (freshwater fishes, lake trout, North America, World Inland Waters)
- 801 (aquaculture techniques, recirculating systems, salmonids)
- 804 (limnology, inland fisheries, Canada)
- 822 (tidal power, environmental effects, Bay of Fundy)
- 833 (squid)
- 874 (scientific papers, Great Lakes Biolimnology Laboratory)
- 878 (information retrieval, data storage)
- M 1487 (life history, fresh water, Pacific salmon, trout, B.C.)
- 1513 (ichthyoparasites, Man.)
- Bideford River, P.E.I.
- T 792 (larvae, yield predictions, spat, American oyster)
- 793 (larvae, spat, biological sampling, American oyster)
- 794 (larvae, yield predictions, spat, American oyster)
- 795 (larvae, yield predictions, spat, American oyster)
- 796 (larvae, yield predictions, spat, American oyster)



- 797 (larvae, yield predictions, spat, American oyster)  
 798 (growth, larvae, temperature effects, American oyster)
- Big Qualicum River, Vancouver Island, B.C.  
 T 752 (rearing, juveniles, chum salmon)  
 824 (migrations, feeding behavior, mortality, chum salmon)
- Bioaccumulation  
 J 36(3) : 247 (DDT, mathematical models, Crustacea)  
 (6) : 689 (selenium, rainbow trout, brown trout)  
 (9) : 1023 (lead, spotted wolffish, Greenland)  
 (9) : 1040 (chemical pollutants, mathematical models, fathead minnow)  
 (12) : 1516 (methylmercury, northern pike)  
 S 2540 (metals, shorthorn sculpin, Arctic char, Strathcona Sound, N.W.T.)  
 2570 (methylmercury, spectroscopic techniques, fish tissues)  
 2574 (cadmium, tissues, brook trout)  
 2615 (alkylhydroxamic acid, tissues, brook trout)  
 2647 (*Gonyaulax*, zooplankton, phytoplankton, Bay of Fundy)  
 2651 (fenitrothion, soft-shell clam, blue mussel, freshwater clam)
- Bioassays (see also Toxicants; Toxicity; Toxicity testing)  
 T 892 (pH, copper toxicity, *Hyalella azteca*)
- Biochemical analysis  
 J 36(1) : 32 (paralytic shellfish poison, *Gonyaulax*, sea scallop, Bay of Fundy)  
 T 856 (analytical techniques, fats, Atlantic herring)  
 S 2558 (oligosaccharides, taxonomy, *Aeromonas*)  
 2577 (fats, fishery products)
- Biochemistry  
 J 36(6) : 605 (ozone, toxicity, rainbow trout)  
 (9) : 1114 (genetics, loci, brook trout, lake trout)  
 (10) : 1278 (biochemical composition, blood, ringed seal, Herschel I., Y.T.)  
 (12) : 1508 (bacteria, *Edwardsiella*)
- Biological drift  
 S 2543 (macrobenthos, invertebrates, Harris R., N.W.T.)
- Biological surveys  
 M 1475 (community composition, fishes, Squamish R., B.C.)  
 1488 (community composition, invertebrates, Strait of Georgia, B.C.)  
 1523 (striped bass, Shubenacadie, Gaspereau, Annapolis rivers, N.S.)  
 D 125 (freshwater lakes, Ingraham Trail, N.W.T.)  
 129 (freshwater lakes, N.W.T.)  
 S 2650 (entomology, methodology, Canada)
- Biophysics  
 M 1499 (habitat, chum salmon, coho salmon, Norrish Creek, B.C.)
- Biosynthesis  
 S 2600 (hydrocarbons, Bedford Basin, N.S.)
- Blackcod (*Anoplopoma fimbria*) (see Sablefish)
- Blackfly (*Simulium arcticum*)  
 S 2587 (pest control, methoxychlor, Athabasca R., Alta.)
- Blood  
 J 36(5) : 574 (vitellogenin, Atlantic salmon)  
 (5) : 592 (pressure effects, fibrinolysis, coho salmon)  
 (10) : 1278 (biochemical composition, ringed seal, Herschel I., Y.T.)  
 S 2565 (blood volume, ringed seal)
- Brachycentrus numerosus* (see Caddis fly)
- Branchiura  
 B 199 (synopsis, fish parasites, Canada)
- Brassica* spp. (see Rapeseed)
- Bream (*Abramis brama*)  
 J 36(8) : 883 (organoleptic properties, Porvoo, Gulf of Finland)
- Breeding  
 T 858 (environmental effects, Pacific oyster, Pendrell Sound, B.C.)  
 882 (natural breeding, seed collection, Pacific oyster, Pendrell Sound, Hotham Sound, Ladysmith Harbour, B.C.)  
 S 2623 (habitat, ringed seal, Viscount Melville Sound, Barrow Strait, Peel Sound, N.W.T.)
- British Columbia (Province), Canada (see also Babine Lake; Cowichan-Koksilah River System, Fraser River; Georgia, Strait of; Howe Sound; Queen Charlotte Islands; Queen Charlotte Sound; Queen Charlotte Strait; Saanich Inlet; Vancouver Island)  
 J 36(1) : 1 (phytoplankton, primary production, regional variations, Vancouver Harbor)  
 (4) : 384 (purse seines, fishing operations, Pacific salmon)  
 (6) : 647 (population dynamics, mathematical models, fishery management, spiny dogfish)  
 (7) : 754 (limited entry, fishery management, Pacific salmon)  
 (12) : 1519 (biological pollutants, wax esters, Copepoda, Bute Inlet)

- T 802 (habitat improvement, algal settlements, oligotrophic lakes, diatoms) 1508
- 807 (watersheds, land development, environmental effects, Pacific salmon) 1509
- 810 (culverts, fishways, environmental effects, Pacific salmon) 1514
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- 1497 (tagging, juveniles, incubation, salmonids, Kakweiken R.) S 2532
- 1499 (fishery management, biophysics, habitat, chum salmon, coho salmon, Norrish Creek)
- 1500 (fishery surveys, stock assessment, population structure, abalone, Banks I.)
- (rearing, habitat, flood plains, chinook salmon, coho salmon, Adams R., Shuswap L.)
- (tagging, rearing, juveniles, chinook salmon, Atnarko R.)
- (biological surveys, marine resources, Pacific Rim National Park) (growth, seasonal variations, juveniles, Pacific hake, walleye pollock, Pacific cod, lingcod, Stuart Channel)
- (fishery surveys, exploratory fishing, potential resources, sidestripe shrimp)
- (exploratory fishing, trap fishing, potential resources, spot prawn)
- (mathematical models, recruitment, yield predictions, sockeye salmon, Rivers Inlet)
- (manuals, trap fishing, juveniles, salmonids)
- (canals, entrainment, mortality causes, Pacific salmon, Seton R.)
- (environmental effects, stream flow, migrations, chinook salmon, rainbow trout, Nicola R.)
- (fishery surveys, catch statistics, groundfish cruises, Dixon Entrance - Cape Ommaney)
- (habitat, spawning, escapement, rivers, Pacific salmon, Statistical Area 29, New Westminster)
- (fishery surveys, catch/effort, Pacific ocean perch, Dover sole, Dixon Entrance - Cape Ommaney)
- (water temperature, fishery surveys, Pacific ocean perch, Hecate Strait)
- (habitat, spawning, escapement, rivers, Pacific salmon, Mission-Harrison sub-district)
- (fishery resources, research programs, tagging, chinook salmon, coho salmon, steelhead trout)
- (fishery surveys, fish catch statistics, biological data)
- (habitat, spawning, escapement, rivers, Pacific salmon, Statistical Area 25, Tahsis)
- (oceanographic data, environmental conditions, Pac.)
- (habitat, spawning, escapement, rivers, Pacific salmon, Kamloops sub-district)
- (biological sampling, groundfish, NE Pac.)
- (oyster culture, production, aquaculture techniques, Pacific oyster)
- (fish culture, manuals, Pacific salmon)
- (saxitoxin, *Gonyaulax*, heterogeneity, clams, mussels, Prince Rupert)

- Bromine; Bromine compounds  
J 36(8) : 1006 (oxidants, toxicity, marine organisms)
- Buchonomyia burmanica* (Diptera)  
S 2644 (new species)
- Buchonomyiinae* (Diptera)  
S 2644 (new subfamily)
- By catch  
J 36(5) : 521 (entangling nets, baleen whales, Nfld.)  
M 1517 (exploratory fishing, trawling, Pacific ocean perch, arrowtooth flounder, Vancouver I., B.C.)
- C
- Caballeronema pseudoargmentosus* (Nematoda)  
S 2522 (new species, shortnose sturgeon, Saint John R. estuary, N.B.)
- Caddis fly (*Brachycentrus numerosus*)  
S 2530 (larvae, pollution effects, fenitrothion)
- Cadmium; Cadmium compounds  
J 36(5) : 579 (kinetics, toxicity, *Asterionella formosa*, *Fragilaria crotonensis*)  
(11) : 1297 (toxicity, temperature effects, rainbow trout)  
S 2540 (bioaccumulation, shorthorn sculpin, Arctic char, Strathcona Sound, N.W.T.)  
2574 (bioaccumulation, tissues, brook trout)
- Calanoida  
T 823 (identification keys, taxonomy, Bay of Fundy)
- Calibration  
J 36(10) : 1288 (sedimentation traps)
- Canada (see also Frobisher Bay; Hudson Bay)  
J 36(6) : 699 (fishery management, bio-economics)  
(7) : 711-866 (conferences, fishery management, fishery economics)  
(7) : 716 (fishery management, evolution, economic rationalization)  
(7) : 827 (inland fisheries, fishery regulations, fishery management)  
(7) : 838 (fishery management, environmental factors, economic analysis)  
(7) : 845 (multispecies fisheries, economic models, fishery management)  
(7) : 859 (fishery management, quota regulations, commercial fisheries) (directories, marine sciences, scientific personnel)  
MSP 41 (synopsis, fish parasites)  
B 199 (life history, biological data, harbor seal, E Canada)
- T 804 (bibliographies, limnology, inland fisheries)  
833 (conferences, short-finned squid)  
M 1482 (thermal pollution, entrainment, impingement)  
S 2542 (population dynamics, exploitation, fishery management, lake trout)  
2593 (entrapment, behavior, baleen whales)  
2620 (fishery economics, resource management)  
2650 (biological surveys, insects, methodology)  
A 401 (environmental effects, transportation, estuaries, Pac. region)
- Cancer gracilis* (see Crab, graceful)  
*irroratus* (see Crab, rock (Atlantic))  
*magister* (see Crab, Dungeness)  
*productus* (see Crab, rock (Pacific))
- Capelin (*Mallotus villosus*)  
T 881 (spawning, fishery resources, feasibility, Nfld.)  
S 2536 (ecology, yield predictions, ICNAF Subareas 2 and 3)  
2560 (population structure, population dynamics, SE Grand Bank)
- Carassius auratus* (see Goldfish)
- Carbohydrates  
J 36(9) : 1134 (D-mannitol, hydrolysis, amino acids, brown alga, green sea urchin)  
S 2520 (fishery products, analytical techniques)  
2533 (enantiomers, spectroscopic techniques, enzymes)  
2552 (cryptomonad starch, autolysis, *Chroomonas salina*)
- Carbon; Carbon compounds  
J 36(2) : 180 (phytoplankton, ATP, St. Lawrence R. estuary)  
(5) : 504 (food chains, detritus, chum salmon, Nanaimo R. estuary, Vancouver I., B.C.)  
(6) : 678 (isotopes, organic suspended matter, Gulf of St. Lawrence)  
D 137 (suspended matter, Experimental Lakes Area, NW Ont.)
- Carbon dioxide  
J 36(11) : 1377 (metabolism, benthos, Dunham Pond, Conn.)
- Carcinogens  
J 36(12) : 1469 (aromatics, seafood)
- Carcinonemertes errans*  
J 36(11) : 1319 (predator, fouling organisms, eggs, Dungeness crab)
- Carnation Creek, Vancouver Island, B.C.  
T 809 (detritus, nutrients)

- D 157 (logging, watersheds, environmental effects, MacMillan Bloedel)
- Carp (*Cyprinus carpio*)  
J 36(12): 1516 (predation, methylmercury, northern pike)
- Carp, grass (*Ctenopharyngodon idella*)  
J 36(10): 1174 (anaerobic bacteria, digestive system)
- Catabolism  
S 2548 (aromatics, *Isochrysis galbana*, *Navicula incerta*)
- Catch/effort  
J 36(12): 1477 (fishery management, mathematical models)  
T 817 (stock assessment, Arctic char, Labrador)  
835 (catch statistics, demersal fisheries, B.C.)  
891 (groundfish fisheries, catch statistics, Pac. coast)  
M 1474 (sport fishing statistics, manuals, chinook salmon, coho salmon, Strait of Georgia, B.C.)  
1489 (stock assessment, mathematical models, shellfish fisheries)  
1511 (stock assessment, winter trawl fishery, Pacific cod, Strait of Georgia, B.C.)  
D 60 (sport fishing statistics, angling, Atlantic salmon, Nfld., Labrador)  
118 (fishery surveys, trawling, catch statistics, rockfishes, Pacific ocean perch, Dover sole, Dixon Entrance - Cape Ommaney, B.C.)  
147 (sport fishing statistics, angling, Atlantic salmon, Nfld., Labrador)
- Catch statistics (see Fish catch statistics; Landing statistics; also Shellfish catch statistics)
- Catfish, channel (*Ictalurus punctatus*)  
J 36(9): 1141 (nitrite toxicity, inhibitors, chloride)  
(12): 1508 (digestive system, bacterial diseases, *Edwardsiella*)
- Catostomus commersoni (see Sucker, white)
- Cell culture  
J 36(4): 461 (methodology, amoebocytes, American oyster)
- Cestoda  
M 1513 (ichthyoparasites, literature reviews, bibliographies, Man.)
- Cestoidea  
B 199 (synopsis, fish parasites, Canada)
- Cetacea (see also Dolphins; Porpoises; Whales; also names of species)  
J 36(2): 158 (diagnostic enzymes, tissues, bottlenose dolphin, beluga, harbor porpoise)
- S 2608 (ecological niches, NW Atl.)  
2610 (paleontology, phylogeny, NE Pac.)  
2614 (paleontology, phylogeny, Africa)
- Char, Arctic (*Salvelinus alpinus*)  
T 814 (speciation, pink salmon)  
817 (stock assessment, catch/effort, catch statistics, Labrador)  
854 (swimming performance, biological fatigue, fishways, Saqvaqjuac R., N.W.T.)  
M 1456 (biological data, resource development, fishery surveys, N.W.T.)  
D 153 (sport fishing statistics, life history, population structure, Tree R., N.W.T.)  
156 (population structure, tagging, Jayco R., N.W.T.)  
S 2540 (metals, bioaccumulation, Strathcona Sound, N.W.T.)
- Check lists  
MSP 42 (endemic species, holarctic lampreys, Northern Hemisphere)  
B 199 (fish parasites, Canada)  
T 802 (diatoms, oligotrophic lakes, B.C.)  
M 1488 (benthos, invertebrates, Strait of Georgia, B.C.)  
1503 (phytoplankton, freshwater lakes, Man., Ont.)  
1513 (ichthyoparasites, Man.)  
D 131 (algae, sea ice, Eclipse Sound, N.W.T.)  
146 (algae, sea ice, Eskimo Lakes, N.W.T.)  
149 (intertidal environment, Copepoda, Nanaimo R., Vancouver I., B.C.)  
155 (phytoplankton, microalgae, sea ice, Frobisher Bay)
- Chemical extraction  
J 36(2): 152 (chlorophylls, blue-green algae, diatoms)  
T 886 (chemical pollutants, organophosphates)
- Chemical pollutants (see Pollutants; Pollution; Pollution effects)
- Chemical stimuli  
J 36(1): 63 (orientation behavior, ovarian fluid, rainbow trout)  
(10): 1186 (morpholine, olfaction, homing behavior, rainbow trout)
- Chemoreception  
S 2547 (olfaction, detergents, pollution effects, lake whitefish)
- Chilling storage (see Storage; Storage effects)
- Chionoecetes opilio* (see Crab, snow)
- Chironomidae (see Diptera)

- Chlorine; Chlorine compounds  
 J 36(9) : 1108 (entrainment, striped bass)  
 (9) : 1141 (inhibitors, nitrite toxicity, channel catfish)
- Chlorophylls  
 J 36(2) : 113 (variations, Indian Arm, Strait of Georgia, B.C.)  
 (2) : 152 (chemical extraction, blue-green algae, diatoms)  
 (5) : 568 (time series analysis, water temperature, covariability, St. Lawrence R. estuary)  
 T 754 (hypolimnion, seasonal variations, fluorometry, Experimental Lakes Area, NW Ont.)  
 D 94 (eutrophic lakes, Erickson, Man.)  
 137 (Experimental Lakes Area, NW Ont.)  
 S 2594 (time series analysis, quantitative distribution, phytoplankton)
- Chlorophyta (see Algae)
- Chondrus crispus* (see Moss, Irish)
- Chromatographic techniques  
 T 887 (water analysis, herbicides, insecticides)  
 S 2544 (Chromarods, fats)  
 2546 (fatty acids, seaweeds, N.S.)  
 2550 (oxidative ozonolysis, methyl esters, fatty acids)  
 2572 (technology, "Iatroscan TH-10")
- Chromium  
 J 36(9) : 1129 (toxicity tests, molting, *Daphnia pulex*)
- Chromosomes  
 J 36(4) : 458 (tissue culture, kidney, conger eel)  
 (6) : 630 (evolution, karyotypes, Yellow-stone cutthroat trout, west-slope cutthroat trout, Yellowstone R., Wyo., Flathead R., Mont.)
- Chroomonas salina* (Protozoa)  
 S 2552 (cryptomonad starch, autolysis)
- Cisco, arctic (*Coregonus autumnalis*)  
 T 829 (potential resources, Hudson Bay)
- Cladocera  
 J 36(4) : 411 (toxicity tests, *Daphnia magna*, fathead minnow)  
 (9) : 1129 (toxicity tests, chromium, molting, *Daphnia pulex*)
- Clam, freshwater (*Anodonta cataraacta*)  
 S 2651 (bioaccumulation, excretion, fenitrothion)
- Clam, soft-shell (*Mya arenaria*)  
 M 1491 (fishery surveys, stock assessment, environmental effects, Bel R. Cove, N.B.)  
 S 2633 (aromatics, toxicity, lethal limits)
- 2651 (bioaccumulation, excretion, fenitrothion)
- Clams (see Shellfish; see also names of species)
- Clupea harengus harengus* (see Herring, Atlantic)  
*harengus pallasii* (see Herring, Pacific) (*Clupea pallasii*)
- Cod, Atlantic (*Gadus morhua*)  
 J 36(12) : 1497 (nucleic acids, growth, developmental stages)  
 I 106 (codworm, human food)  
 CHN 69 (minced products, storage effects, freezing storage)
- Cod, Pacific (*Gadus macrocephalus*)  
 M 1511 (stock assessment, catch/effort, winter trawl fishery, Strait of Georgia, B.C.)  
 1516 (tagging, methodology, mortality, Strait of Georgia, B.C.)  
 1518 (juveniles, growth, seasonal variations, Stuart Channel, B.C.)  
 D 150 (tagging, population structure, Strait of Georgia, B.C.)
- Codworm (*Phocanema decipiens*) (see Nematoda)
- Cold storage (see Storage; Storage effects)
- Colloids  
 J 36(8) : 906 (fibrils, lakes, Canada)  
 (8) : 922 (fibrils, algae, bacteria, lakes, Canada)
- Commercial fishing (see also Fisheries; also Shellfish fisheries)  
 J 36(7) : 800 (foreign fleets, fishery regulations, fishery management)  
 D 99 (foreign fisheries, monitoring, fishery statistics, NE Pac.)  
 139 (catch statistics, lake whitefish, Great Slave L., N.W.T.)
- Community composition  
 M 1475 (biological surveys, fishes, Squamish R., B.C.)  
 1488 (biological surveys, invertebrates, Strait of Georgia, B.C.)
- Computer programs  
 J 36(8) : 987 (aging methods, age composition, size distribution, fishes)  
 D 124 (water circulation, wind-driven currents, N Pac.)
- Conferences  
 J 36(3) : 289-345 (life history, proposed research, freshwater benthic invertebrates)  
 (7) : 711-866 (symposium, fishery management, fishery economics, Canada)  
 T 759 (fishery biology, fishery management, chinook salmon, coho salmon)  
 818 (toxicity workshop, aquatic environment)

- 833 (workshop, short-finned squid)  
862 (toxicity workshop, aquatic environment)
- Connecticut State, USA  
J 36(11): 1377 (metabolism, energy budget, benthos, Dunham Pond)
- Contaminants (see Pollutants; Pollution; Pollution effects)
- Continental shelves  
J 36(10): 1228 (environmental effects, light intensity, phytoplankton, NW Atl.)  
M 1492 (water temperature, B.C.)
- Copepoda  
J 36(5): 488 (detritus, food chains, harpacticoids, chum salmon, Nanaimo R. estuary, Vancouver I., B.C.)  
(10): 1256 (zooplankton, production, Burlington Canal, Ont.)  
(12): 1519 (biological pollutants, wax esters, *Calanus plumchrus*, Bute Inlet, B.C.)  
B 199 (synopsis, fish parasites, Canada)  
T 883 (log storage, pollution effects, interstitial environment, Nanaimo R., Vancouver I., B.C.)  
D 149 (check lists, intertidal environment, Nanaimo R., Vancouver I., B.C.)
- Copper; Copper compounds  
J 36(8): 901 (detoxication, excretory products, algae)  
T 847 (toxicity, osmoregulation, growth, sockeye salmon, Babine L., B.C.)  
892 (toxicity, bioassays, pH, *Hyalella azteca*)  
M 1470 (pollution effects, population density, aquatic insects, Tomogonops R., NW Miramichi R., N.B.)  
S 2540 (bioaccumulation, shorthorn sculpin, Arctic char, Strathcona Sound, N.W.T.)  
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- (7) : 716 (evolution, economic rationalization, Canada)
- (7) : 725 (economic analysis, fishery regulations)
- (7) : 742 (sociological aspects, fishery economics, fishing effort)
- (7) : 754 (limited entry, Pacific salmon, B.C.)
- (7) : 764 (fishery regulations, Pacific salmon fleet, Pac.)
- (7) : 770 (limited entry, Alaska)
- (7) : 783 (limited entry, Alaska)
- (7) : 789 (limited entry, economic analysis, rock lobster, prawns, Western Australia)
- (7) : 800 (fishery regulations, foreign fleets, World Oceans)
- (7) : 811 (groundfish, economic analysis, Maritime Provinces)
- (7) : 827 (inland fisheries, fishery regulations, Canada)
- (7) : 838 (environmental factors, economic analysis, Canada)
- (7) : 845 (multispecies fisheries, economic models, Canada)
- (7) : 859 (quota regulations, commercial fisheries, Canada)
- (8) : 891 (catching methods, inland fisheries, L. Victoria, E Africa)

- (8) : 939 (mathematical models, critical path method)
- (9) : 1145 (echo surveys, acoustics, escapement, sockeye salmon, L. Washington, Wash.)
- (12) : 1477 (catch/effort, mathematical models)
- T 759 (conferences, chinook salmon, coho salmon)
- 812 (production, rearing, smolts, sockeye salmon, Babine L., B.C.)
- 819 (economics, Atlantic salmon, Saint John R., N.B.)
- 820 (pink salmon, Pac.)
- 827 (habitat improvement, nursery grounds, sockeye salmon, B.C., Y.T.)
- 839 (fishery resources, Pacific salmon, Nitinat L., Vancouver I., B.C.)
- 853 (stock assessment, computer programs, system analysis)
- M 1493 (stock assessment, yield predictions, roe, Pacific herring, B.C.)
- 1496 (fishing gear, basket dragrakes, Irish moss, Gulf of St. Lawrence)
- 1499 (stream flow, chum salmon, coho salmon, Norrish Creek, B.C.)
- 1527 (stream flow, Pacific salmon, steelhead trout, Sooke R., Vancouver I., B.C.)
- D 100 (quota regulations, smooth pink shrimp, Vancouver I., B.C.)
- 101 (fishery data, lake whitefish, Great Slave L., N.W.T.)
- 125 (freshwater lakes, Ingraham Trail, N.W.T.)
- 129 (freshwater lakes, N.W.T.)
- S 2542 (exploitation, lake trout, Canada)
- 2560 (capelin, SE Grand Bank)
- 2563 (fishery regulations, permits, whaling)
- 2581 (research programs, Atl. coast)
- 2585 (quota regulations, witch flounder, ICNAF Divisions 2J, 3K, 3L)
- 2620 (economics, fishery resources, Canada)
- A 399 (Atlantic salmon, Nfld., Labrador)
- Fishery products (see also Processing fishery products)
- T 867 (chilled products, food additives, storage effects)
- 870 (harvesting, processing, red sea urchin, green sea urchin, purple sea urchin, NE Pac.)
- 879 (chilling storage, freezing storage, yellowtail rockfish, Pacific ocean perch)
- M 1476 (roe quality, green sea urchin, NE Pac., B.C.)
- S 2520 (carbohydrates, proteins, analytical techniques)
- 2526 (quality control, minced products, deboners)
- 2535 (fish oils, trace elements, Atlantic herring)
- 2569 (storage effects, minced products, Atlantic argentine, roundnose grenadier)
- 2577 (biochemical analysis, fats)
- CHN 69 (minced products, freezing storage, quality control, Atlantic cod)
- 70 (quality control, chilled products, storage effects)
- 71 (hypobaric storage, storage effects, quality control)
- Fishery regulations
- J 36(7) : 725 (economic analysis, fishery management)
- (7) : 754 (limited entry, fishery management, Pacific salmon, B.C.)
- (7) : 764 (economic analysis, fishery management, Pacific salmon fleet)
- (7) : 770 (limited entry, fishery management, Alaska)
- (7) : 783 (historical account, limited entry, fishery management, Alaska)
- (7) : 789 (limited entry, economic analysis, fishery management, rock lobster, prawns, Western Australia)
- (7) : 800 (foreign fleets, fishery management, World Oceans)
- (7) : 827 (inland fisheries, fishery management, Canada)
- (7) : 855 (fishermen)
- (7) : 859 (commercial fishing, fishery management, Canada)
- S 2563 (whaling, permits)
- 2613 (season regulations, resource conservation, sperm whale, World Oceans)
- Fishery resources
- T 839 (fishery management, Pacific salmon, Nitinat L., Vancouver I., B.C.)
- 876F (trap fishing, Atlantic herring, Magdalen Is., Gulf of St. Lawrence)
- 881 (feasibility, capelin, Nfld.)
- M 1483 (fishery surveys, Liard R., B.C., N.W.T.)
- 1484 (resource conservation, watersheds, coho salmon, Black Creek, Vancouver I., B.C.)
- 1520 (exploratory fishing, sidestripe shrimp, B.C.)
- 1527 (fishery management, stream flow, Pacific salmon, steelhead trout, Sooke R., Vancouver I., B.C.)
- D 134 (research programs, tagging, chinook salmon, coho salmon, steelhead trout, B.C.)
- S 2620 (economics, fishery management, Canada)
- A 405 (stock assessment, N.W.T., Y.T.)
- Fishery surveys
- T 836 (biological data, freshwater fishes, Ossokmanuan Reservoir, Labrador)
- M 1456 (biological data, resource development, Arctic char, N.W.T.)
- 1480 (population density, size)

- distribution, abalone, Queen Charlotte Is., Banks I., B.C.)  
 1483 (fishery resources, Liard R., B.C., N.W.T.)  
 1490 (population density, size distribution, abalone, Queen Charlotte Is., B.C.)  
 1491 (stock assessment, environmental effects, soft-shell clam, Eel R. Cove, N.B.)  
 1500 (stock assessment, population structure, abalone, Banks I., B.C.)  
 1511 (trawling, groundfish, stock assessment, Strait of Georgia, B.C.)  
 1520 (exploratory fishing, potential resources, sidestripe shrimp, B.C.)  
 D 100 (biomass, smooth pink shrimp, Vancouver I., B.C.)  
 106 (stock assessment, Queen Charlotte Sound, B.C.)  
 110 (catch composition, marine fishes, rockfishes, Queen Charlotte Is., B.C.)  
 112 (groundfish, catch statistics, rockfishes, Pacific ocean perch, Dover sole, Dixon Entrance - Cape Ommaney, B.C.)  
 113 (stock assessment, Dover sole, Queen Charlotte Is., B.C.)  
 118 (trawling, catch/effort, rockfishes, Pacific ocean perch, Dover sole, Dixon Entrance - Cape Ommaney, B.C.)  
 120 (biomass, Pacific ocean perch, Hecate Strait, B.C.)  
 122 (biological sampling, freshwater fishes, lakes, N.S.)  
 130 (stock assessment, Pacific herring, Vancouver I., Queen Charlotte Sound, B.C.)  
 135 (echo surveys, biological data, B.C.)  
 136 (catch statistics, biological data, river lamprey, Pacific lamprey, marine fishes, Strait of Georgia, B.C.)  
 138 (fish catch statistics, biological data, Queen Charlotte Sound, B.C.)  
 145 (stock assessment, smooth pink shrimp, Vancouver I., B.C.)  
 152 (catch statistics, biomass, smooth pink shrimp, Queen Charlotte Sound, Vancouver I., B.C.)  
 I 96 (underwater photography, seaweeds, Irish moss, Maritime Provinces)
- Fishes (see also names of species)  
 J 36(3) : 255 (vertebrae counts, locomotion, mathematical models)  
 (3) : 270 (trace elements, freshwater fishes, S.C.)  
 (12) : 1490 (acoustics, body size, stock assessment)  
 B 199 (synopsis, fish parasites, Canada)  
 T 829 (salinity effects, geographical distribution, Hudson Bay)  
 M 1475 (biological surveys, community composition, Squamish R., B.C.)
- S 2640 (toxicants, lethal limits, mathematical models)
- Fishing effort  
 J 36(7) : 742 (fishery economics, fishery management, sociological aspects)
- Fishing gear  
 J 36(10) : 1180 (gillnets, gear selectivity, lake whitefish, L. Huron)  
 M 1496 (basket dragrakes, Irish moss, Gulf of St. Lawrence)
- Fishways  
 T 810 (culverts, environmental effects, Pacific salmon, B.C.)  
 811 (culverts, guidelines, hydraulic engineering, Pacific salmon, B.C.)  
 828 (hydraulic models, culverts, Redknife R., N.W.T.)  
 854 (swimming, biological fatigue, Arctic char, Saqvaquac R., N.W.T.)  
 M 1523 (estuaries, habitat improvement, Atlantic salmon, Sheet Harbour, N.S.)
- Fjords  
 J 36(1) : 42 (water circulation, water exchange, Saguenay fjord, Que.)
- Flood control  
 M 1465 (environmental effects, freshwater fishes, Peace-Athabasca delta, Alta.)
- Flounder, arrowtooth (*Atheresthes stomias*) (turbot)  
 M 1517 (by catch, trawling, Vancouver I., B.C.)
- Flounder, witch (*Glyptocephalus cynoglossus*)  
 S 2585 (stock assessment, fishery management, ICNAF Divisions 2J, 3K, 3L)
- Fluorescence  
 J 36(12) : 1464 (fluorescent antibody technique, bacterial kidney disease, Atlantic salmon, Margaree R., N.S.)
- Fluorine; Fluorine compounds  
 J 36(11) : 1414 (fluoride, shells, Antarctic krill, Atlantic krill, Norway)
- Food; Food availability; Food consumption  
 J 36(4) : 470 (food preference, predators)  
 (5) : 497 (detritus, meiofauna, chum salmon, Nanaimo R. estuary, Vancouver I., B.C.)  
 (11) : 1408 (juveniles, Atlantic salmon, streams)  
 M 1464 (feeding behavior, Dungeness crab, Hecate Strait, B.C.)  
 1477 (feeding behavior, rainbow trout, winterkill lakes, Man.)  
 S 2628 (chemical analysis, protein, rainbow trout, Erickson-Elphinstone, Man.)

- Food additives  
T 867 (EDTA, storage effects, chilled products)
- Food chains; Food webs  
J 36(5) : 488 (detritus, harpacticoid copepods, chum salmon, Nanaimo R. estuary, Vancouver I., B.C.)  
(5) : 504 (detritus, carbon, chum salmon, Nanaimo R. estuary, Vancouver I., B.C.)
- Fouling organisms  
J 36(11) : 1319 (predators, *Carcinonemertes errans*, eggs, Dungeness crab)
- Fraser River, B.C.  
T 826 (geographical distribution, population number, juveniles, Pacific salmon)  
M 1501 (environmental effects, trenching, benthos, Roberts Bank)
- Freezing storage (see Storage; Storage effects)
- Freshwater fishes (see also names of species)  
T 799 (bibliographies, North America)  
836 (fishery surveys, biological data, Ossokmanuan Reservoir, Labrador)  
M 1465 (environmental effects, flood control, activity patterns, Peace-Athabasca delta, Alta.)  
D 102 (experimental fishing, gillnets, catch composition, Great Slave L., N.W.T.)  
122 (fishery surveys, biological surveys, lakes, N.S.)  
142 (mercury, pollution data, Labrador)
- Freshwater lakes  
J 36(8) : 906 (colloids, fibrils, Canada)  
(8) : 922 (colloids, fibrils, ultrastructure, Canada)  
M 1503 (phytoplankton, check lists, Man., Ont.)  
D 121 (light penetration, water transparency, Experimental Lakes Area, NW Ont.)  
125 (biological data, limnological data, Ingraham Trail, N.W.T.)  
129 (biological data, limnological data, N.W.T.)
- Frobisher Bay, Canada  
D 155 (phytoplankton, microalgae, sea ice)  
S 2562 (primary production, seasonal variations)
- Fry (see name of species)
- Fundulus heteroclitus* (see Mummichog)
- Fundy, Bay of (N.B.-N.S.)  
J 36(1) : 32 (biochemical analysis, paralytic shellfish poison, *Gonyaulax*, sea scallop)
- (6) : 667 (storms, hurricanes, benthos, Minas Basin)  
(10) : 1197 (environmental effects, tidal energy, sublittoral zone)  
T 822 (tidal power, environmental effects, bibliographies)  
823 (identification keys, taxonomy, Calanoida)  
S 2599 (tidal power, environmental effects, Cumberland Basin)  
2647 (bioaccumulation, toxicity testing, phytoplankton, zooplankton, *Gonyaulax*)
- Furunculosis (*Aeromonas*) (see Diseases; Disease control)
- G
- Gadidae  
CHN 68 (minced products, curing, salt fish)  
*Gadus macrocephalus* (see Cod, Pacific)  
*morhua* (see Cod, Atlantic)
- Gambusia affinis* (see Mosquitofish)
- Gear selectivity  
J 36(8) : 891 (overfishing, L. Victoria, E Africa)  
(10) : 1180 (gillnets, lake whitefish, L. Huron)  
D 141 (hooks, tagging, spiny dogfish, Strait of Georgia, B.C.)  
S 2580 (trap fishing, baited traps, rock crab (Pacific))
- Genera, new (see New genera)
- Genetics (see also Fish culture)  
J 36(9) : 1114 (biochemistry, loci, brook trout, lake trout)  
S 2527 (hybridization, attribute data analysis)  
2579 (hybridization, discriminant analysis)
- Geochemistry  
S 2553 (suspended matter, Saguenay fjord, Que.)  
2554 (sediments, heavy metals, St. Lawrence R. estuary, Gulf of St. Lawrence)  
2557 (mercury, Saguenay fjord, Que.)  
2595 (mercury, Saguenay fjord, Que., Gulf of St. Lawrence)
- Geographical distribution (see Distribution)
- Georgia, Strait of, B.C.  
J 36(2) : 113 (chlorophylls, variations, physical properties, Indian Arm)  
(6) : 657 (phytoplankton, planktonology)  
T 826 (geographical distribution, population number, juveniles, Pacific salmon)  
830 (growth, marine environment,



- juveniles, Pacific salmon)  
 843 (territoriality, spawning, lingcod)  
 M 1474 (sport fishing statistics, catch/effort, manuals, chinook salmon, coho salmon)  
 1485 (spawning grounds, charts, aquatic plants, Pacific herring)  
 1488 (biological surveys, community composition, benthic invertebrates)  
 1511 (stock assessment, catch/effort, winter trawl fishery, Pacific cod)  
 1516 (tagging, methodology, mortality, Pacific cod)  
 D 107 (biological data, spawning, Pacific herring)  
 111 (catch statistics, intertidal environment, marine fishes, Pacific salmon)  
 119 (seining, catch statistics, juveniles, Pacific salmon, Nanaimo)  
 128 (seining, catch statistics, juveniles, Pacific salmon, Nanaimo)  
 136 (fishery surveys, river lamprey, Pacific lamprey, marine fishes)  
 141 (tagging, gear selectivity, spiny dogfish)  
 150 (tagging, methodology, population structure, Pacific cod)
- Gillnets  
 J 36(10): 1180 (gear selectivity, lake whitefish, L. Huron)  
 D 102 (experimental fishing, freshwater fishes, lake whitefish, Great Slave L., N.W.T.)
- Glyptocephalus cynoglossus* (see Flounder, witch)
- Goldeye (*Hiodon alosoides*)  
 M 1465 (population structure, age composition, Peace - Athabasca delta, Alta.)
- Goldfish (*Carassius auratus*)  
 J 36(10): 1174 (anaerobic bacteria, digestive system)
- Gonyaulax* (see Poisons(biological))
- Gracilaria* sp. (see Alga, red)
- Grand Bank (off Nfld.)  
 S 2560 (population structure, population dynamics, capelin)  
 2583 (stock assessment, age composition, population structure, haddock)  
 2586 (population dynamics, sexual maturity, spawning, haddock)
- Great Bear Lake, N.W.T.  
 M 1440 (sport fishing statistics, population structure, lake trout)  
 D 103 (sport fishing, monitoring, fishery biology, lake trout)
- Great Central Lake, Vancouver Island, B.C.  
 T 803 (habitat improvement, upwelling,
- salmonids)  
 880 (planktonology, fertilization, nursery grounds, sockeye salmon)
- Great Lakes, America (see also Huron, Lake; Michigan, Lake; Ontario, Lake; Superior, Lake)  
 J 36(3): 286 (phosphorus, eutrophication, phytoplankton)  
 S 2619 (habitat, geographical distribution, Percidae, Esocidae)
- Great Slave Lake, N.W.T.  
 M 1440 (sport fishing statistics, population structure, lake trout)  
 D 101 (fishery management, fishery data, lake whitefish)  
 102 (experimental fishing, gillnets, freshwater fishes, lake whitefish)  
 103 (sport fishing, monitoring, fishery biology, lake trout)  
 139 (commercial fishing, catch statistics, biological data, lake whitefish)
- Greenland  
 J 36(9): 1023 (pollution monitoring, bioaccumulation, lead, spotted wolffish)
- Grenadier, roundnose (*Coryphoenoides rupestris*) (rock grenadier)  
 S 2569 (storage effects, minced products)
- Growth  
 J 36(1): 93 (eyestalk ablation, survival, American lobster)  
 (5): 481 (energy budget, dynamics, northern pike, Lac Ste. Anne, Alta.)  
 (5): 552 (population genetics, selective fishing, mathematical models, brown trout, Au Sable R., Mich.)  
 (10): 1238 (environmental conditions, indicator species, blue mussel)  
 (11): 1395 (longevity, age composition, otolith reading, Pacific ocean perch, Vancouver I., B.C.)  
 (12): 1497 (developmental stages, nucleic acids, Atlantic cod)  
 T 752 (rearing, juveniles, chum salmon, Big Qualicum R., Vancouver I., B.C.)  
 798 (invertebrate larvae, temperature effects, American oyster, Bideford R., P.E.I.)  
 830 (early marine growth, juveniles, Pacific salmon, Strait of Georgia, Saanich Inlet, B.C.)  
 847 (environmental conditions, copper, sockeye salmon, Babine L., B.C.)  
 M 1477 (variations, rainbow trout, winterkill lakes, Man.)  
 1495 (temperature effects, juveniles, coho salmon)  
 1518 (seasonal variations, juveniles, Pacific hake, walleye pollock, Pacific cod, lingcod, Stuart Channel, B.C.)



- S 2556 (Greenland halibut, ICNAF Subareas 2-4)
- 2561 (pollution effects, oil pollution, phytoplankton, arctic Canada, Alaska)
- 2583 (stock assessment, haddock, S Grand Bank)
- 2636 (salinity effects, *Gonyaulax*, Cape Ann, Mass.)
- 2648 (limiting factors, stocking density, culture tanks, American lobster)
- Growth regulators
- S 2528 (hormones, coho salmon)
- Gulf of... (see name of gulf)
- H**
- Habepegrus washingtonia* (Mollusca)
- S 2551 (new genus, new species, Pteriomorphia, NE Pac.)
- Habitat
- M 1499 (biophysics, stream flow, chum salmon, coho salmon, Norrish Creek, B.C.)
- 1508 (flood plains, rearing, chinook salmon, coho salmon, Adams R., Shuswap L., B.C.)
- 1527 (stream flow, Pacific salmon, steelhead trout, Sooke R., Vancouver I., B.C.)
- D 98 (stream flow, migrations, chinook salmon, rainbow trout, Nicola R., B.C.)
- 115 (spawning, rivers, Pacific salmon, Statistical Area 29, New Westminster, B.C.)
- 132 (spawning, rivers, Pacific salmon, Statistical Area 1, Queen Charlotte Is., B.C.)
- 133 (spawning, rivers, Pacific salmon, Mission-Harrison sub-district, B.C.)
- 143 (spawning, rivers, Pacific salmon, Statistical Area 25, Tahsis, B.C.)
- 151 (spawning, rivers, Pacific salmon, Kamloops sub-district, B.C.)
- S 2619 (Percidae, Esocidae, North America)
- 2623 (breeding, ringed seal, Viscount Melville Sound, Barrow Strait, Peel Sound, N.W.T.)
- Habitat improvement (physical)
- M 1523 (fishways, estuaries, Atlantic salmon, Sheet Harbour, N.S.)
- Habitat improvement (fertilization)
- T 802 (algal settlements, oligotrophic lakes, B.C.)
- 803 (upwelling, primary production, salmonids, Great Central L., Vancouver I., B.C.)
- 827 (nursery grounds, sockeye salmon, B.C., Y.T.)
- 880 (nursery grounds, sockeye salmon, Great Central L., Vancouver I., B.C.)
- Haddock (*Melanogrammus aeglefinus*)
- S 2575 (sound muscle, morphology, enzymes)
- 2583 (stock assessment, age composition, population structure, S Grand Bank)
- 2586 (spawning, sexual maturity, S Grand Bank)
- Hake, Pacific (*Merluccius productus*)
- J 36(2) : 141 (aging methods, otolith reading)
- M 1518 (juveniles, growth, seasonal variations, Stuart Channel, B.C.)
- D 136 (biological data, catch statistics, Strait of Georgia, B.C.)
- Halibut, Greenland (*Reinhardtius hippoglossoides*)
- S 2556 (age, growth, ICNAF Subareas 2-4)
- Halichoerus grypus* (see Seal, grey)
- Haliotis kamtschatkana* (see Abalone)
- Haplochromis* sp. (see Mouthbrooders)
- Hatcheries (see Fish culture)
- Heavy metals (see also Pollutants: Pollution; Pollution effects)
- S 2595 (quantitative distribution, dynamics, Saguenay fjord, Que., Gulf of St. Lawrence)
- 2635 (pollution monitoring, indicator species, field horsetail)
- Hematology
- S 2565 (blood volume, ringed seal)
- Herbicides
- T 887 (water analysis, chromatographic techniques)
- M 1478 (2,4-D, toxicity, rainbow trout, Okanagan L., B.C.)
- S 2539 (degradation, soils)
- Herring, Atlantic (*Clupea harengus harengus*) (Baltic herring)
- T 800 (population dynamics, population structure, Gulf of St. Lawrence)
- 844 (fish culture, hybrids, Pacific herring)
- 856 (fats, analytical techniques, biochemical analysis)
- 866 (processing fishery products, curing, quality control)
- 876F (trap fishing, processing fishery products, spawning grounds, Magdalen Is., Gulf of St. Lawrence)
- I 100 (canning, sauces)
- S 2535 (fish oils, trace elements)
- 2537 (tagging, migrations, stock inter-relationships, SW Nfld., S Gulf of St. Lawrence)

- Herring, Pacific (*Clupea harengus pallasii*)  
(*Clupea pallasii*)  
J 36(2) : 219 (freezing storage, sodium compounds, rancidity)  
(Corrections on J 36(8): 1021)  
(9) : 1097 (VEN, Puget Sound, Wash.)  
T 821 (roe, preservatives, formaldehyde)  
844 (fish culture, hybrids, Baltic herring)  
848 (statistical sampling, population characteristics, variance analysis, B.C.)  
M 1485 (spawning grounds, charts, aquatic plants, Strait of Georgia, B.C.)  
1493 (stock assessment, yield predictions, roe, B.C.)  
1505 (tagging, feasibility)  
D 106 (fishery surveys, catch statistics, Queen Charlotte Sound, B.C.)  
107 (biological data, spawning, Strait of Georgia, B.C.)  
130 (fishery surveys, stock assessment, Vancouver I., Queen Charlotte Sound, B.C.)  
136 (biological data, catch statistics, Strait of Georgia, B.C.)
- Heterotrophy  
M 1515 (bacteria, S Davis Strait)
- Hexagenia rigida* (see Mayfly, burrowing)
- Hiodon alosoides* (see Goldeye)
- Hirudinoidea  
B 199 (synopsis, fish parasites, Canada)
- Histology  
J 36(6) : 683 (kidney, lesions, nephrocalcinosis, rainbow trout)
- Homarus americanus* (see Lobster, American)
- Horizontal distribution (see Distribution)
- Hormones  
J 36(3) : 282 (chemical kinetics, iodine, metabolism, rainbow trout)  
S 2528 (growth regulators, coho salmon)  
2627 (ecdysterone acetate, molting, American lobster)
- Horsetail, field (*Equisetum arvense*)  
S 2635 (indicator species, heavy metals, trace elements)
- Howe Sound, B.C.  
D 109 (oceanographic data, water quality)
- Hudson Bay, Canada  
T 829 (geographical distribution, salinity effects, fishes)
- Human food  
J 36(11): 1414 (fluoride, Antarctic krill, Atlantic krill, Norway)  
(12): 1469 (seafoods, carcinogens, aromatics)
- I 106 (codworm)  
S 2519 (fish oils, insecticides)  
2520 (fishery products, carbohydrates, proteins)  
2545 (fatty acids, measurement)  
2616 (vitamin C, Inuit hunters, Holman, N.W.T.)  
CHN 63 (fishery products, quality control, Atlantic mackerel)
- Humic acids  
S 2629 (ash content, sediments)
- Huron, Lake, America  
J 36(1) : 37 (entrainment, fish larvae, Douglas Point)  
(10): 1180 (gillnets, gear selectivity, lake whitefish)
- Hurricanes  
J 36(6) : 667 (environmental effects, benthos, Minas Basin, Bay of Fundy)
- Hyalella azteca* (see Amphipoda)
- Hybridization  
S 2527 (attribute data analysis, genetics)  
2579 (discriminant analysis, morphology, genetics)
- Hybrids: Hybrid culture  
T 844 (Pacific herring, Baltic herring)
- Hydraulic engineering  
M 1483 (highways, environmental effects, fishery resources, Liard R., B.C., N.W.T.)  
1501 (trenching, environmental effects, benthos, Roberts Bank, Fraser R. delta, B.C.)
- Hydraulic structures  
T 810 (culverts, fishways, environmental effects, Pacific salmon, B.C.)  
811 (culverts, guidelines, fishways, Pacific salmon, B.C.)  
828 (models, fishways, culverts, Redknife R., N.W.T.)  
838 (fish screens, Garrison Diversion Unit, Missouri R., N.D.)  
M 1481 (culverts, environmental effects, Mackenzie R., N.W.T.)  
D 96 (pumps, mortality causes, coho salmon)
- Hydrocarbons  
J 36(6) : 615 (naphthalene, toxicity, mumichog)  
(12): 1469 (aromatics, carcinogens, enclosures, American lobster)  
S 2521 (petroleum, pollution effects, mutations)  
2548 (aromatics, catabolism, *Isochrysis galbana*, *Navicula incerta*)  
2582 (petroleum, mutagens, marine organisms)

- 2600 (seasonal variations, origin, biosynthesis, Bedford Basin, N.S.)
- 2607 (diphenyl ether, metabolism, thorny skate)
- 2617 (detoxication, enzymes, AHH)
- 2625 (analytical techniques, laboratory equipment)
- 2633 (aromatics, toxicity, lethal limits, soft-shell clam, sand shrimp)
- Hydrology  
M 1484 (watersheds, Black Creek, Vancouver I., B.C.)
- Hydrolysis  
J 36(9) : 1134 (amino acids, tissues, brown alga, green sea urchin)
- Hypolimnion  
T 754 (chlorophylls, seasonal variations, Experimental Lakes Area, NW Ont.)
- I
- Ichthyomyzon fossor* (see Lamprey, northern brook)
- Ichthyoplankton  
J 36(1) : 81 (entrainment, collecting devices)  
(9) : 1108 (entrainment, chlorine, temperature effects, striped bass)
- T 890 (vertical distribution, echo-sounding, Scotian Shelf, N.S.)
- ICNAF (see International Commission for the Northwest Atlantic Fisheries)
- Ictalurus punctatus* (see Catfish, channel)
- Identification keys  
T 791 (larvae, chironomids, watersheds, Mackenzie R., N.W.T., Porcupine R., Y.T.)  
823 (Calanoida, Bay of Fundy)
- Illex illecebrosus* (see Squid, short-finned) spp. (see Squids)
- Illinois State, USA  
J 36(10) : 1196 (phytoplankton, temperature optima, seasonal variations, L. Michigan)
- Immunology  
J 36(2) : 222 (vibriosis, bacterial diseases, sockeye salmon)  
(6) : 636 (analytical techniques)  
S 2624 (phagocytosis, *Pseudomonas perolens*, American lobster)
- Impingement  
M 1482 (thermal pollution, power plants, Canada)
- Indicator species  
J 36(10) : 1238 (environmental conditions, production, blue mussel)
- S 2584 (*Anisakis simplex*, distribution, stock identification, Atlantic salmon)
- 2635 (field horsetail, pollution monitoring, heavy metals)
- Industrial wastes (see also Pollutants; Pollution; Pollution effects)  
J 36(9) : 1049 (pulpmill effluents, pollution effects, coho salmon)  
(9) : 1089 (coal ash, pollution effects, mosquitofish, benthos, Savannah R., N.C.)  
(11) : 1412 (pollution effects, organoleptic properties, rainbow trout)
- T 831 (pulpmill effluents, pollution effects, avoidance behavior, pink salmon)
- 884 (pulpmill effluents, marine pollution, L'Etang estuary, N.B.)
- D 109 (pulpmill effluents, water quality, Howe Sound, B.C.)
- S 2639 (PCBs, human adipose tissue, population density)
- Industries  
T 883 (log storage, pollution effects, interstitial environment, Copepoda, Nematoda, Nanaimo R., Vancouver I., B.C.)
- D 157 (logging, watersheds, MacMillan Bloedel, Carnation Creek, Vancouver I., B.C.)
- Information retrieval  
T 878 (data storage, bibliographies)
- Inland fisheries  
J 36(7) : 827 (fishery regulations, fishery management, Canada)
- Insecta (see Aquatic insects)
- Insecticides (see Pesticides)
- International Commission for the Northwest Atlantic Fisheries (ICNAF)  
S 2536 (ecology, yield predictions, capelin, Subareas 2 and 3)  
2556 (age, growth, Greenland halibut, Subareas 2-4)  
2585 (stock assessment, fishery management, witch flounder, Divisions 2J, 3K, 3L)
- International Whaling Commission (see Whales; also names of species)
- Interspecific relationships  
J 36(10) : 1191 (predation, brook trout, crayfish, Mich.)  
S 2597 (niche analysis, feeding behavior, walleye)
- Interstitial environment  
T 883 (log storage, pollution effects,

- Copepoda, Nematoda, Nanaimo R.,  
Vancouver I., B.C.)
- Intertidal environment  
D 111 (catch statistics, marine fishes,  
Pacific salmon, Strait of Georgia,  
B.C.)  
149 (benthos, check lists, Copepoda,  
Nanaimo R., Vancouver I., B.C.)
- Introduced species  
J 36(4) : 422 (geographical distribution,  
Atlantic salmon, World Waters)  
(10) : 1265 (stocking, sockeye salmon,  
chinook salmon, Frazer L., Kodiak  
I., Alaska)  
(10) : 1283 (meristic counts, morphology,  
pink salmon, L. Superior)  
T 829 (potential resources, arctic cisco,  
Hudson Bay)  
838 (exotic species, population con-  
trol, Man.)
- Invertebrates (see also names of organisms)  
J 36(3) : 311 (biological sampling, life  
history, benthos)  
(3) : 321 (life history, toxicity tests,  
benthic macroinvertebrates)  
(Corrections on J 36(8) : 1021)  
(3) : 329 (life history, environmental  
effects, benthic macroinverte-  
brates)  
(3) : 342 (life history, conferences,  
proposed research, benthos)  
(9) : 1089 (benthos, coal ash, pollution  
effects, Savannah R., S.C.)  
(12) : 1425 (benthos, secondary produc-  
tion, life history)  
M 1488 (benthos, check lists, Strait of  
Georgia, B.C.)  
1519 (benthos, vertical distribution,  
population number, L. Ontario)  
S 2543 (macrobenthos, sedimentation,  
Harris R., N.W.T.)  
2587 (pollution effects, methoxychlor,  
Athabasca R., Alta.)
- Invertebrate larvae  
T 791 (identification keys, chironomids,  
watersheds, Mackenzie R., N.W.T.,  
Porcupine R., Y.T.)
- Iodine  
J 36(3) : 282 (metabolism, hormones, chemical  
kinetics, rainbow trout)
- Ion exchange  
J 36(8) : 901 (detoxication, copper, excre-  
tory products, algae)
- IPNV (Infectious pancreatic necrosis virus)  
(see Diseases; Disease control)
- Isochrysis (see Algae)
- Isopoda  
B 199 (synopsis, fish parasites, Canada)
- Isotopes  
J 36(6) : 678 (carbon, organic suspended  
matter, Gulf of St. Lawrence)
- J
- Japan  
T 851 (processing fishery products, roe,  
Alaska pollock)  
S 2605 (seasonal variations, regression  
analysis, photosynthesis, phyto-  
plankton)
- Jasmineira pacifica* (Polychaeta)  
J 36(8) : 869 (new records, NE Pac.)
- Juveniles (see names of species)
- K
- Karyotypes  
J 36(6) : 630 (subpopulation, Yellowstone  
cutthroat trout, west-slope  
cutthroat trout, Yellowstone R.,  
Wyo., Flathead R., Mont.)
- Keys, identification (see Identification keys)
- Kidney  
J 36(4) : 458 (tissue culture, chromosomes,  
conger eel)  
(6) : 683 (lesions, histology, nephro-  
calcinosis, rainbow trout)  
(9) : 1149 (metals, deepwater calico  
scallop, bay scallop)  
(11) : 1370 (bacterial kidney disease,  
feral fish, brook trout, brown  
trout, rainbow trout, Wyo.)  
(12) : 1464 (bacterial kidney disease,  
fluorescent antibody technique,  
Atlantic salmon, Margaree R., N.S.)
- Kinetics  
J 36(3) : 282 (iodine, metabolism, rainbow  
trout)  
(5) : 579 (cadmium, *Asterionella formosa*,  
*Fragilaria crotonensis*)  
(8) : 970 (phosphorus, L. Memphremagog,  
Que.-Vt.)
- Krill, Antarctic (*Euphausia superba*)  
J 36(11) : 1414 (shells, fluoride, human  
food, Norway)
- Krill, Atlantic (*Meganyctiphanes norvegica*)  
J 36(11) : 1414 (shells, fluoride, human  
food, Norway)
- L
- Labrador, Nfld.  
T 817 (stock assessment, catch/effort,  
landing statistics, Arctic char,  
Atlantic salmon)  
836 (fishery surveys, biological data,  
freshwater fishes, Ossokmanuan  
Reservoir)

- D 60 (sport fishing statistics, angling, catch/effort, Atlantic salmon)
- 142 (mercury, freshwater fishes, anadromous fishes)
- 147 (sport fishing statistics, angling, catch/effort, Atlantic salmon)
- 148 (water quality, fresh water, atlas)
- A 399 (fishery management, Atlantic salmon)
- Labrador Sea
- D 114 (primary production, phytoplankton, nutrients)
- Labyrinthomyxa* sp.
- S 2621 (pathology, mortality, blue mussel, River Bridge, P.E.I.)
- Lake morphology
- S 2645 (primary production, eutrophication, Experimental Lakes Area, NW Ont.)
- Laminaria longicuris* (see Alga, brown)
- Lampetra ayresi* (see Lamprey, river)
- Lamprey, northern brook (*Ichthyomyzon fossor*)
- S 2641 (new records, geographical distribution, Birch R., Nelson R. drainage, Man.)
- Lamprey, Pacific (*Entosphenus tridentatus*)
- D 136 (biological data, catch statistics, Strait of Georgia, B.C.)
- Lamprey, river (*Lampetra ayresi*)
- D 136 (geographical distribution, biological data, feeding behavior, Strait of Georgia, B.C.)
- Lampreys (Petromyzonidae)
- MSP 42 (check lists, geographical distribution, Northern Hemisphere)
- Landing statistics (see Fish catch statistics; also Shellfish catch statistics)
- Lead; Lead compounds
- J 36(9) : 1023 (pollution monitoring, bioaccumulation, spotted wolffish, Greenland)
- S 2540 (bioaccumulation, shorthorn sculpin, Arctic char, Strathcona Sound, N.W.T.)
- 2554 (geochemistry, sediments, St. Lawrence R. estuary, Gulf of St. Lawrence)
- Lesions
- J 36(6) : 683 (kidney, histology, nephrocalcinosis, rainbow trout)
- Lethal limits (see Toxicants; Toxicity; Toxicity tests)
- Life cycle; Life history
- J 36(3) : 290 (Trichoptera)
- (3) : 311 (benthic invertebrates)
- (3) : 318 (taxonomy, aquatic insects)
- (3) : 321 (toxicity tests, benthic invertebrates)
- (3) : 329 (environmental effects, benthic invertebrates)
- (3) : 335 (animal nutrition, feeding behavior, aquatic insects)
- (3) : 342 (conferences, benthic invertebrates)
- (12) : 1425 (benthos, secondary production, invertebrates)
- (12) : 1503 (feeding behavior, detritus feeders, maldanid polychaetes, St. Margaret's Bay, N.S.)
- B 200 (biological data, harbor seal, E Canada)
- M 1487 (bibliographies, fresh water, Pacific salmon, trout, B.C.)
- D 153 (Arctic char, Tree R., N.W.T.)
- Light intensity
- J 36(10) : 1228 (environmental effects, phytoplankton, continental shelves, NW Atl.)
- M 1522 (attenuation, suspended matter, L. Winnipeg, Man.)
- Light penetration
- D 121 (Experimental Lakes Area, NW Ont.)
- Limatula saturna* (Mollusca)
- S 2551 (new species, Pteriomorpha, NE Pac.)
- Limatula vancouverensis* (Mollusca)
- S 2551 (new species, Pteriomorpha, NE Pac.)
- Limnology (see also Experimental Lakes Area, Northwestern Ontario; also Water quality)
- J 36(8) : 970 (phosphorus, L. Memphremagog, Que.-Vt.)
- T 803 (upwelling, habitat improvement, primary production, salmonids, Great Central L., Vancouver I., B.C.)
- 804 (bibliographies, Canada)
- 839 (environmental surveys, Nitinat L., Vancouver I., B.C.)
- 865 (primary production, oligotrophic lakes, B.C.)
- 874 (scientific papers, Great Lakes Biolimnology Laboratory)
- D 122 (freshwater lakes, N.S.)
- 125 (freshwater lakes, Ingraham Trail, N.W.T.)
- 129 (freshwater lakes, N.W.T.)
- 158 (physical properties, Southern Indian L., Man.)
- Lingcod (*Ophiodon elongatus*)
- T 843 (territoriality, spawning, Strait of Georgia, B.C.)
- M 1518 (juveniles, growth, seasonal variations, Stuart Channel, B.C.)

## Lipids (see Fats; Fatty acids)

## Literature reviews

- M 1513 (ichthyoparasites, Man.)  
S 2612 (finback whales, World Oceans)

## Liver

- J 36(6) : 689 (ribonucleic acid, rainbow trout, brown trout)  
(10) : 1207 (energy budget, mathematical models, pollock)

Lobster, American (*Homarus americanus*)

- J 36(1) : 93 (eyestalk ablation, survival, growth)  
(5) : 537 (feeding behavior, predation, sea scallop)  
(8) : 965 (nutritional requirements, energy budget, diets, Maine)  
(12) : 1469 (carcinogens, aromatics, enclosures)  
I 102 (shellfish culture, feasibility, N.S.)  
S 2525 (shell condition, external examination)  
2624 (phagocytosis, *Pseudomonas perolens*)  
2627 (molting, hormones)  
2631 (creosote, toxicity, hepatopancreas, N.B.)  
2632 (insecticides, toxicity)  
2638 (pyrethroids, toxicity, lethal limits)  
2648 (growth, stocking density, culture tanks)

Lobster, rock (*Panulirus longipes cygnus*)

- J 36(7) : 789 (fishery economics, fishery management, limited entry, Western Australia)

## Locomotion

- J 36(3) : 255 (hydrodynamic equations, pleomerism, fishes)  
(8) : 948 (orientation behavior, ocean pens, salmonids, Norway)  
T 854 (swimming, biological fatigue, fishways, Arctic char, Saqvaquac R., N.W.T.)  
S 2529 (recording equipment, pink salmon)  
2649 (swimming, pentachlorophenol, American eel, N.B.)

*Lycodapus mandibularis* (see Eelpout, pallid)

## M

*Macaca fascicularis* (see Monkey)

## Mackenzie River; Mackenzie River Estuary, N.W.T.

- T 769 (whaling, resource management, beluga, Mackenzie R. estuary)  
791 (identification keys, larvae, chironomids, watersheds, Mackenzie R.)  
M 1481 (benthos, culverts, water quality, Mackenzie R.)

Mackerel, Atlantic (*Scomber scombrus*)

- T 885 (population characteristics, biological data, subpopulation, NW Atl.)  
CHN 63 (quality control, human food)

*Macrobrachium rosenbergii* (see Prawn, freshwater)

## Magdalen Islands, Gulf of St. Lawrence

- T 876F (trap fishing, processing fishery products, Atlantic herring)

## Maine State, USA

- J 36(8) : 965 (nutritional requirements, energy budget, American lobster)

## Maldanidae (see Polychaeta)

*Mallotus villosus* (see Capelin)

## Manitoba (Province), Canada (see also Prairie Provinces)

- J 36(8) : 980 (oxygen depletion, winterkill lakes)  
T 813 (reports, Fisheries and Marine Service, Western Region, Winnipeg)  
838 (exotic species, population control)  
849 (aging methods, walleye, Wapun L.)  
M 1477 (winterkill lakes, growth, feeding behavior, rainbow trout)  
1486 (water quality, atmospheric precipitations, chemical analysis, Flin Flon)  
1503 (phytoplankton, check lists, freshwater lakes)  
1513 (ichthyoparasites, literature reviews, bibliographies)  
1522 (light intensity, suspended matter, L. Winnipeg)  
1531 (mercury compounds, bioaccumulation, lake whitefish, northern pike, Southern Indian L.)  
D 94 (eutrophic lakes, algal blooms, *Aphanizomenon flos-aquae*, Erickson)  
108 (ATP, nutrients, Southern Indian L.)  
158 (limnological data, physical properties, Southern Indian L.)  
S 2589 (algal blooms, summerkill, Erickson-Elphinstone)  
2591 (copper, algicides, toxicity, eutrophic lakes, Erickson-Elphinstone)  
2628 (food, chemical composition, proteins, rainbow trout, lakes, Erickson-Elphinstone)  
2641 (new records, geographical distribution, northern brook lamprey, Birch R., Nelson R. drainage)

## Manuals

- M 1474 (logbook, sport fishing statistics, chinook salmon, coho salmon, Strait of Georgia)  
1530 (trap fishing, juveniles, salmonids, B.C.)

## Marine fishes (see also names of species)

- D 110 (fishery surveys, catch composition,

- 111 Queen Charlotte Is., B.C.)  
(catch statistics, intertidal environment, Strait of Georgia, B.C.)
- Marine mammals (see Aquatic mammals; also names of species)
- Marine organisms  
S 2592 (size distribution, pelagic ecosystems)  
2617 (hydrocarbons, enzymes, detoxication)
- Marine parks  
M 1514 (biological surveys, marine resources, Pacific Rim National Park, B.C.)
- Marine pollution (see Pollutants; Pollution; Pollution effects; also Pollution monitoring)
- Marine sciences  
MSP 41 (directories, scientific personnel, Canada)
- Maritime Provinces (see also New Brunswick; Nova Scotia; Prince Edward Island)  
J 36(7) : 811 (groundfish fishery, economic analysis, fishery management)  
D 86 (pollution monitoring, bacteria, Atlantic oyster, 1977)  
123 (pollution monitoring, bacteria, Atlantic oyster, 1978)  
127 (monitoring, toxicity, shellfish)  
I 96 (fishery surveys, underwater photography, seaweeds, Irish moss)
- Massachusetts State, USA  
S 2636 (salinity effects, growth, saxitoxin, Gonyaulax, Cape Ann)
- Mathematical models  
J 36(2) : 225 (phosphorus loading, lakes, Northern Hemisphere)  
(3) : 247 (DDT, bioaccumulation, Crustacea)  
(3) : 255 (vertebrae counts, hydrodynamic equations, fishes)  
(4) : 362 (feeding behavior, grazing, zooplankton)  
(4) : 404 (stock assessment, population characteristics, harp seal)  
(5) : 552 (population genetics, growth, selective fishing, brown trout, Au Sable R., Mich.)  
(6) : 647 (population dynamics, spiny dogfish, B.C.)  
(8) : 939 (stochastic processes, fishery management, critical path method)  
(9) : 1040 (bioaccumulation, chemical pollutants, fathead minnow)  
(10) : 1207 (energy budget, liver, condition factor, pollock)  
(10) : 1223 (seiches, time series analysis, Port San Juan, Vancouver I., B.C.)
- (12) : 1477 (fishery management, catch/effort)  
T 889 (biological systems)  
M 1489 (catch/effort, stock assessment, shellfish fisheries)  
1524 (recruitment, yield predictions, sockeye salmon, Rivers Inlet, B.C.)  
S 2527 (attribute data analysis, hybridization, genetics)  
2555 (energy flow, pelagic ecosystems)  
2588 (primary production, Experimental Lakes Area, NW Ont.)  
2598 (population dynamics, harvesting)  
2606 (vertical distribution, zooplankton, NE Atl.)  
2618 (eutrophication, Experimental Lakes Area, NW Ont.)  
2626 (biological data, curve fitting)  
2640 (toxicants, lethal limits, fishes)
- Mayfly, burrowing (*Hexagenia rigida*)  
S 2642 (eggs, hatching, temperature effects)
- Mediterranean Sea  
S 2564 (stock assessment, population characteristics, Mediterranean monk seal)
- Meganyctiphanes norvegica* (see Krill, Atlantic)
- Megaptera novaeangliae* (see Whale, humpback)
- Melanogrammus aeglefinus* (see Haddock)
- Memphremagog, Lake, Que.-Vt., America  
J 36(8) : 970 (phosphorus, kinetics)
- Mercury; Mercury compounds  
J 36(6) : 670 (pollution monitoring, walleye, northern pike, lake whitefish, Ball L., Ont.)  
(12) : 1516 (methylmercury, bioaccumulation, northern pike)  
M 1531 (bioaccumulation, lake whitefish, northern pike, Southern Indian L., Man.)  
D 142 (pollution data, freshwater fishes, anadromous fishes, Labrador)  
S 2557 (geochemistry, Saguenay fjord, Que.)  
2570 (methylmercury, spectroscopic techniques)  
2595 (geochemistry, Saguenay fjord, Que., Gulf of St. Lawrence)
- Meristic counts  
J 36(10) : 1283 (morphology, introduced species, pink salmon, L. Superior)
- Merluccius productus* (see Hake, Pacific)
- Metabolism  
J 36(3) : 280 (iodine, hormones, chemical kinetics, rainbow trout)  
(11) : 1377 (benthos, Dunham Pond, Conn.)  
S 2607 (diphenyl ether, thorny skate)
- Metals  
J 36(9) : 1149 (kidney, deepwater calico)



- S 2540 scallop, bay scallop  
(bioaccumulation, shorthorn sculpin, Arctic char, Strathcona Sound, N.W.T.)
- Metapenaeus* (see Prawns)
- Methodology  
J 36(10): 1256 (measurement, production, copepods, Burlington Canal, Ont.)  
(11): 1405 (biological water analysis, viruses, IPN, Salmonidae)  
M 1516 (tagging, mortality, Pacific cod, Strait of Georgia, B.C.)  
D 150 (tagging, Pacific cod, Strait of Georgia, B.C.)  
S 2545 (titration, measurement, fatty acids)  
2650 (biological surveys, entomology, Canada)
- Michigan, Lake, USA  
J 36(4): 366 (thermal plumes, temperature effects, acclimatization, rainbow trout)  
(6): 694 (population density, statistical sampling, opossum shrimp)
- Michigan State, USA  
J 36(5): 552 (population genetics, growth, mathematical models, brown trout, Au Sable R.)  
(9): 1029 (feeding behavior, golden shiner)  
(10): 1191 (predation, brook trout, crayfish)
- Microbiology  
M 1515 (bacteria, heterotrophy, S Davis Strait)
- Microstomus pacificus* (see Sole, Dover)
- Migrations (see also Spawning migrations)  
(orientation behavior, subpopulation, sockeye salmon, Babine L., B.C.)  
824 (fry, chum salmon, Big Qualicum R., Vancouver I., B.C.)  
840 (monitoring, tagging, fry, Pacific salmon, Quinsam R., Vancouver I., B.C.)  
872 (oceanodromous, dispersion, pink salmon, sockeye salmon, NE Pac.)  
M 1465 (activity patterns, freshwater fishes, Peace-Athabasca delta, Alta.)  
1497 (tagging, juveniles, coho salmon, Kakweiken R., B.C.)  
1506 (tagging, juveniles, coho salmon, Keogh R., Vancouver I., B.C.)  
1507 (tagging, juveniles, coho salmon, steelhead trout, Chemainus R., Vancouver I., B.C.)  
D 98 (environmental effects, stream flow, chinook salmon, rainbow trout, Nicola R., B.C.)
- S 2537 (tagging, Atlantic herring, SW Nfld., S Gulf of St. Lawrence)  
2622 (white whale, narwhal, walrus, harp seal, bowhead whale, Lancaster Sound, N.W.T.)
- Milfoil, Eurasian (*Myriophyllum spicatum*)  
M 1478 (plant control, 2,4-D, Okanagan L., B.C.)
- Minnow, fathead (*Pimephales promelas*)  
J 36(2): 164 (chemical compounds, sublethal effects)  
(4): 411 (toxicity tests, chronic toxicity values, *Daphnia magna*)  
(9): 1040 (bioaccumulation, chemical pollutants, mathematical models)
- Missouri River, North Dakota, USA  
T 838 (fish screens, Garrison Diversion Unit)
- Mollusca (see also names of species)  
B 199 (synopsis, fish parasites, Canada)  
S 2551 (new species, new genus, Pteriomorphia, NE Pac.)
- Molting  
J 36(9): 1129 (toxicity tests, chromium, *Daphnia pulex*)  
S 2525 (shell condition, external examination, American lobster)  
2627 (hormones, American lobster)
- Monachus monachus* (see Seal, Mediterranean monk)
- Monitoring (see also Pollution monitoring)  
T 840 (migrations, tagging, fry, Pacific salmon, Quinsam R., Vancouver I., B.C.)  
D 59 (monitoring stations, spawning migrations, Atlantic salmon, Nfld.)  
99 (foreign fisheries, NE Pac.)  
127 (toxicity, shellfish, Maritime Provinces)
- Monkey (*Macaca fascicularis*)  
T 808 (fish oils, fatty acids, diets)
- Monodon monoceros* (see Narwhal)
- Monogenea  
B 199 (synopsis, fish parasites, Canada)
- Monogenoidea  
M 1513 (ichthyoparasites, literature reviews, bibliographies, Man.)
- Montana State, USA  
J 36(6): 630 (karyotypes, subpopulation, cutthroat trout, Flathead R.)
- Morone saxatilis* (see Bass, striped)
- Morphology (organisms)  
J 36(8): 869 (taxonomy, Sabellidae, NE Pac.)



- (10): 1214 (polymorphism, divergence, sympatric populations, lake white-fish, Y.T.)
- (10): 1283 (meristic counts, introduced species, pink salmon, L. Superior) (body size, limiting factors, pink salmon, North America)
- T 820 (body size, body weight, reproductive organs, green sea urchin, NE Pac., B.C.)
- M 1476 (sound muscle, haddock) (genetics, hybridization)
- S 2575 (genetics, hybridization)
- 2579
- Mortality; Mortality causes
- J 36(10): 1238 (indicator species, environmental conditions, blue mussel) (fry, chum salmon, Big Qualicum R., Vancouver I., B.C.)
- T 824 (pumps, waste water, coho salmon) (entrainment, canals, Pacific salmon, Seton R., B.C.)
- D 96 (blue mussel, *Labryinthomyxa* sp., River Bridge, P.E.I.)
- 97 (algal blooms, eutrophic lakes, rainbow trout, Prairie Provinces)
- S 2621 (algal blooms, eutrophic lakes, rainbow trout, Prairie Provinces)
- 2630
- Mosquitofish (*Gambusia affinis*)
- J 36(9): 1089 (coal ash, pollution effects, Savannah R., S.C.)
- Moss, Irish (*Chondrus crispus*)
- T 806 (harvesting, resource management, N.S.)
- M 1496 (fishing gear, basket dragrakes, Gulf of St. Lawrence)
- I 96 (fishery surveys, underwater photography, Maritime Provinces)
- Mouthbrooders (Cichlidae)
- J 36(8): 891 (catching methods, gear selectivity, *Tilapia*, *Haplochromis*, L. Victoria, E Africa)
- Mummichog (*Fundulus heteroclitus*)
- J 36(6): 615 (naphthalene, toxicity, salinity)
- (11): 1400 (temperature effects, enzymes)
- Muscular system
- S 2575 (sound muscle, morphology, enzymes, haddock)
- Mussel, blue (*Mytilus edulis*)
- J 36(8): 955 (fecundity, reproduction, Nfld., N.S.)
- (10): 1238 (production, indicator species, environmental conditions)
- T 815 (shellfish culture, feasibility, B.C.)
- S 2621 (mortality, *Labyrinthomyxa* sp., River Bridge, P.E.I.)
- 2651 (bioaccumulation, excretion, fenitrothion)
- Mussels (see Shellfish; also names of species)
- Mutations
- S 2521 (pollution effects, petroleum, aquatic environment)
- 2582 (mutagens, petroleum hydrocarbons, marine organisms)
- Mya arenaria* (see Clam, soft-shell)
- Myoxocephalus quadricornis* (see Sculpin, four-horn)
- scorpius* (see Sculpin, shorthorn)
- Myriophyllum spicatum* (see Milfoil, Eurasian)
- Mysis relicta* (see Shrimp, opossum)
- Mysticeti (baleen whales) (see Whales)
- Mytilus edulis* (see Mussel, blue)
- Myxosoma cerebralis* (see Diseases; Disease control)
- Myxosporidia
- B 199 (synopsis, fish parasites, Canada)
- N
- Narwhal (*Monodon monoceros*)
- S 2567 (progress reports, research, Arctic)
- 2622 (migrations, Lancaster Sound, N.W.T.)
- Navicula (see Algae)
- Nematoda
- B 199 (synopsis, fish parasites, Canada)
- T 883 (log storage, pollution effects, interstitial environment, Nanaimo R., Vancouver I., B.C.)
- M 1513 (ichthyoparasites, literature reviews, bibliographies, Man.)
- I 106 (codworm, human food)
- S 2522 (*Caballeronema pseudoargementosus*, new species, shortnose sturgeon, Saint John R. estuary, N.B.)
- 2584 (*Anisakis simplex*, quantitative distribution, indicator species, Atlantic salmon)
- New Brunswick (Province), Canada (see also Fundy, Bay of; Maritime Provinces; Saint John River; Saint John River Estuary)
- J 36(9): 1102 (pathogens, agglutinins, furunculosis, Atlantic salmon, Restigouche R.)
- T 805 (shellfish culture, historical account, leases, American oyster, Caraquet Bay)
- 884 (marine pollution, pulp mill effluents, L'Etang estuary)
- M 1470 (pollution effects, industrial wastes, population density, aquatic insects, Tomogonops R., NW Miramichi R.)
- 1491 (fishery surveys, stock assessment, environmental effects, soft-shell clam)

- D 91 (population density, juveniles, Atlantic salmon, Miramichi R.)
- 117 (population density, juveniles, Atlantic salmon, Restigouche R.)
- 126 (age composition, Atlantic salmon)
- S 2523 (new records, coho salmon, Frost Fish Creek, Digdeguash R.)
- 2631 (creosote, toxicity, lethal limits, American lobster, sand shrimp)
- 2649 (pentachlorophenol, oxygen consumption, locomotion, American eel)
- New families
- S 2644 (new subfamily, Buchonomyiinae)
- New genera (Mollusca)
- S 2551 (*Habepegris*, Pteriomorpha, NE Pac.)
- New records
- J 36(4) : 468 (geographical distribution, subpopulation, pygmy whitefish, Copper R., Alaska)
- (8) : 869 (*Jasmineira*, *Oriopsis*, *Sabel-lastarte*, NE Pac.)
- S 2522 (parasites, shortnose sturgeon, Atlantic sturgeon, Saint John R. estuary, N.B.)
- 2523 (coho salmon, Frost Fish Creek, Digdeguash R., N.B.)
- 2641 (geographical distribution, northern brook lamprey, Birch R., Nelson R. drainage, Man.)
- New species
- S 2522 (*Caballeronema pseudoargmentosus*, shortnose sturgeon, Saint John R. estuary, N.B.)
- 2551 (bivalve molluscs, Pteriomorpha, NE Pac.)
- 2644 (*Buchonomyia burmanica*)
- New York State, USA
- J 36(2) : 173 (activity patterns, light effects, yellow perch, Cazenovia L.)
- Newfoundland (Province), Canada (see also Labrador)
- J 36(5) : 521 (entangling nets, by catch, baleen whales)
- (8) : 955 (fecundity, reproduction, blue mussel, green sea urchin, snow crab)
- T 881 (fishery resources, feasibility, capelin)
- D 59 (monitoring, spawning migrations, Atlantic salmon)
- 60 (sport fishing statistics, angling, catch/effort, Atlantic salmon)
- 147 (sport fishing statistics, angling, catch/effort, Atlantic salmon)
- S 2537 (tagging, migrations, stock inter-relationships, Atlantic herring)
- 2559 (sewage, bacterioides, seawater, St. John's Harbour)
- A 399 (fishery management, Atlantic salmon)
- Nitrogen; Nitrogen compounds
- J 36(9) : 1141 (nitrite toxicity, inhibitors, chloride, channel catfish)
- (11) : 1364 (nutrient deficiency, algae)
- S 2538 (leucopterin, pteridines, degradation)
- Nitrogen cycle
- J 36(6) : 673 (sediment analysis, tubificids, Ont.)
- S 2541 (ammonium, coastal zone)
- North America
- T 799 (bibliographies, freshwater fishes)
- S 2619 (habitat, geographical distribution, Percidae, Esocidae)
- Northern Hemisphere
- J 36(2) : 255 (phosphorus loading, lakes, mathematical models)
- MSP 42 (check lists, geographical distribution, lampreys)
- Northwest Territories (Territory), Canada (see also Great Bear Lake; Great Slave Lake; Mackenzie River; Mackenzie River Estuary)
- T 828 (hydraulic models, fishways, culverts, Redknife R.)
- 837 (aerial surveys, population density, aquatic mammals, Cornwallis I.)
- 854 (fishways, swimming, biological fatigue, Arctic char, Saqvaquac R.)
- M 1456 (biological data, resource development, fishery surveys, Arctic char)
- 1483 (fishery resources, environmental effects, highways, Liard R.)
- D 104 (atmospheric precipitations, chemical analysis, fresh water, Saqvaquac)
- 125 (freshwater lakes, biological data, limnological data)
- 129 (freshwater lakes, biological data, limnological data)
- 131 (check lists, biological data, sea ice, algae, Eclipse Sound)
- 146 (check lists, biological data, sea ice, algae, Eskimo Lakes)
- 153 (sport fishing statistics, life history, population structure, Arctic char, Tree R.)
- 156 (population structure, tagging, Jayco R.)
- S 2516 (population density, annual variations, ringed seal, Amundsen Gulf)
- 2518 (arsenic, sediments, biota, freshwater lakes, Yellowknife)
- 2540 (metals, bioaccumulation, shorthorn sculpin, Arctic char, Strathcona Sound)
- 2543 (macrobenthos, invertebrates, sedimentation, Harris R.)
- 2616 (vitamin C, diets, Inuit hunters, Holman)

- 2623 (breeding, habitat, ringed seal, Viscount Melville Sound, Barrow Strait, Peel Sound)
- A 405 (fishery resources, stock assessment)
- Norway
- J 36(8) : 948 (ocean pens, orientation behavior, swimming, salmonids)
- (11): 1414 (fluoride, shells, human food, Antarctic krill, Atlantic krill)
- Notemigonus crysoleucas* (see Shiner, golden)
- Nova Scotia (Province), Canada (see also Bedford Basin; Fundy, Bay of; Maritime Provinces; Scotian Shelf; St. Margaret's Bay)
- J 36(8) : 955 (fecundity, reproduction, blue mussel, green sea urchin, snow crab)
- (12): 1464 (bacterial kidney disease, fluorescent antibody technique, Atlantic salmon, Margaree R.)
- T 806 (seaweeds, harvesting, resource management, Irish moss)
- 841 (fish culture, aquaculture techniques, rearing, Atlantic salmon, Mersey Hatchery)
- 869 (water circulation, water temperature, salinity, St. Georges Bay)
- M 1523 (fishways, habitat improvement, estuaries, Sheet Harbour)
- 1532 (sport fishing statistics, biological surveys, striped bass, Shubenacadie, Gaspereau, Annapolis rivers)
- D 105 (population density, juveniles, Atlantic salmon, streams)
- 122 (environmental surveys, limnological data, fishery surveys)
- I 102 (shellfish culture, feasibility, American lobster)
- S 2546 (seaweeds, fatty acids)
- 2576 (seaweeds, fatty acids)
- Nucleic acids
- J 36(12) : 1497 (RNA-DNA ratio, growth, developmental stages, Atlantic cod)
- Nursery grounds
- T 827 (environmental surveys, sockeye salmon, B.C., Y.T.)
- 880 (fertilization, sockeye salmon, Great Central L., Vancouver I., B.C.)
- Nutrient deficiency
- J 36(11): 1364 (phosphorus, nitrogen, algae)
- Nutrients (mineral)
- J 36(2) : 122 (distribution, variations, regeneration, Gulf of St. Lawrence)
- (2) : 187 (water circulation, plankton, quantitative distribution, Gulf of St. Lawrence)
- T 809 (detritus, Carnation Creek, Vancouver I., B.C.)
- D 87 (surface water, St. Margaret's Bay, N.S.)
- 93 (primary production, Bedford Basin, N.S.)
- 94 (eutrophic lakes, Erickson, Man.)
- 108 (Southern Indian L., Man.)
- 114 (experimental data, Labrador Sea)
- Nutrition; Nutritional requirements
- J 36(8) : 965 (energy budget, American lobster, Maine)
- O
- Obituaries
- J 36(5) : 595 (Neal Marshall Carter, 1902-1978)
- (10): 1292 (Russell Earle Foerster, 1899-1978)
- (12): 1524 (James Cameron Stevenson, 1918-1979)
- Oceanography
- J 36(1) : 42 (water circulation, water exchange, Saguenay fjord, Que.)
- (2) : 113 (physical oceanography, Indian Arm, Strait of Georgia, B.C.)
- (2) : 187 (nutrients, plankton, Gulf of St. Lawrence)
- (10): 1223 (seiches, time series analysis, mathematical models, Port San Juan, Vancouver I., B.C.)
- (10): 1228 (continental shelves, phytoplankton, NW Atl.)
- (12): 1445 (water mixing, Scotian Shelf)
- T 825 (water currents, current meters)
- 869 (water circulation, temperature, salinity, St. Georges Bay, N.S.)
- D 109 (salinity, water temperature, oxygen, Howe Sound, B.C.)
- 116 (wind-driven currents, time series analysis, NE Pac.)
- 124 (ocean transport, wind-driven currents, computer programs, N Pac.)
- 144 (environmental conditions, B.C. coast)
- 152 (water temperature, Queen Charlotte Sound, Vancouver I., B.C.)
- S 2643 (geostrophic currents, seasonal variations, Scotian Shelf)
- Odobenus rosmarus* (see Walrus)
- Odontoceti (toothed whales) (see Whales)
- Oil pollution (see also Pollutants; Pollution; Pollution effects)
- S 2561 (pollution effects, growth, phytoplankton, arctic Canada, Alaska)
- 2600 (hydrocarbons, seasonal variations, Bedford Basin, N.S.)
- Olfaction
- J 36(10) : 1186 (morpholine, homing behavior, rainbow trout)
- S 2547 (detergents, pollution effects, lake whitefish)

## Oligochaeta

- J 36(6) : 673 (nitrogen cycle, sediment analysis, tubificids, Ont.)

## Oligotrophic lakes

- T 802 (habitat improvement, algal settlements, diatoms, B.C.)

*Oncorhynchus gorbuscha* (see Salmon, pink)

- keta (see Salmon, chum)  
 kisutch (see Salmon, coho)  
 nerka (see Salmon, sockeye)  
 spp. (see Salmon (Pacific in general))  
 tshawytscha (see Salmon, chinook)

## Ontario (Province), Canada (see also Experimental Lakes Area)

- J 36(6) : 640 (snowmelt, pH, acidity)  
 (6) : 670 (mercury, pollution monitoring, walleye, northern pike, lake whitefish, Ball L.)  
 (6) : 673 (sediment analysis, benthos, nitrogen cycle, tubificids)  
 (10) : 1256 (production, copepods, Burlington Canal)  
 T 868 (entrainment, fish larvae, St. Clair R.)  
 M 1503 (phytoplankton, check lists, freshwater lakes)

## Ontario, Lake, America

- J 36(11) : 1336 (biological production, phosphorus cycle, phytoplankton)  
 M 1519 (benthos, vertical distribution, population number, invertebrates)

*Ophiodon elongatus* (see Lingcod)*Orcinus orca* (see Whale, killer)*Orconectes virilis* (see Crayfish)

## Oregon State, USA

- J 36(1) : 17 (organic suspended matter, streams, Cascade Mountains)

## Organic suspended matter

- J 36(1) : 17 (detritus, streams, Cascade Mountains, Oreg.)  
 (6) : 678 (carbon, isotopes, Gulf of St. Lawrence)  
 (8) : 906 (colloids, fibrils, lakes, Canada)  
 (8) : 922 (colloids, fibrils, ultra-structure, lakes, Canada)  
 D 137 (carbon, Experimental Lakes Area, NW Ont.)

## Organoleptic properties

- J 36(8) : 883 (bream, Porvoo, Gulf of Finland)  
 (11) : 1412 (pollution effects, industrial wastes, rainbow trout)

## Orientation behavior

- J 36(1) : 63 (chemical stimuli, ovarian

fluid, rheotropism, rainbow trout)

- (8) : 948 (swimming, ocean pens, salmonids, Norway)

- T 717 (migrations, subpopulation, sockeye salmon, Babine L., B.C.)

*Oriopsis gracilis* (Polychaeta)

- J 36(8) : 869 (new records, NE Pac.)

*Oscillatoria* (see Alga, blue-green)*Osmerus mordax* (see Smelt, rainbow)

## Osmoregulation

- J 36(6) : 615 (salinity, naphthalene, toxicity, mummichog)  
 T 847 (salinity tolerance, copper, sockeye salmon, Babine L., B.C.)

## Otoliths; Otolith reading

- J 36(2) : 141 (aging methods, Pacific hake)  
 (4) : 377 (aging methods, yellowtail rockfish)  
 (11) : 1395 (age composition, longevity, Pacific ocean perch, Vancouver I., B.C.)

## Oxidation

- J 36(8) : 1006 (bromine compounds, ozonization, seawater)  
 S 2550 (oxidative ozonolysis, methyl esters, fatty acids)

## Oxygen

- J 36(11) : 1377 (metabolism, benthos, Dunham Pond, Conn.)  
 D 94 (dissolved oxygen, eutrophic lakes, Erickson, Man.)

## Oxygen consumption

- S 2649 (pentachlorophenol, locomotion, American eel, N.B.)  
 2654 (aquatic organisms)

## Oxygen depletion

- J 36(8) : 980 (winterkill lakes, Man.)  
 S 2589 (summerkill, algal blooms, eutrophic lakes, Erickson-Elphinstone, Man.)

Oyster, Atlantic (*Crassostrea virginica*) (American oyster)

- J 36(4) : 461 (cell culture, methodology, amoebocytes)  
 T 792 (larvae, yield predictions, spat, Bideford R., P.E.I.)  
 793 (larvae, spat, biological sampling, Bideford R., P.E.I.)  
 794 (larvae, yield predictions, spat, Bideford R., P.E.I.)  
 795 (larvae, yield predictions, spat, Bideford R., P.E.I.)  
 796 (larvae, yield predictions, spat, Bideford R., P.E.I.)  
 797 (larvae, yield predictions, spat, Bideford R., P.E.I.)  
 798 (larvae, growth, temperature effects, Bideford R., P.E.I.)

- 805 (shellfish culture, historical account, leases, Caraquet Bay, N.B.)
- D 86 (pollution monitoring, bacteria, Maritime Provinces 1977)
- 123 (pollution monitoring, bacteria, Maritime Provinces 1978)
- Oyster, Pacific (*Crassostrea gigas*)
- J 36(11): 1313 (population genetics, muscle proteins)
- T 858 (breeding, seed collection, environmental effects, Pendrell Sound, B.C.)
- 882 (oyster culture, breeding, seed collection, Pendrell Sound, Hotham Sound, Ladysmith Harbour, B.C.)
- I 103 (oyster culture, production, aquaculture techniques, B.C.)
- Ozone
- J 36(6): 605 (toxicity, physiology, biochemistry, rainbow trout)
- (8): 1006 (water treatment, seawater)
- P
- Pacific Ocean
- J 36(1): 69 (vertebrae counts, environmental effects, pallid eelpout, NE Pac.)
- (1): 98 (fishery management, fishery development, Pacific salmon, NE Pac.)
- (7): 764 (fishery regulations, economic analysis, fishery management, Pacific salmon)
- (7): 800 (foreign fleets, fishery regulations, fishery management)
- (8): 869 (morphology, distribution, new records, Sabellidae, NE Pac.)
- T 820 (body size, limiting factors, fishery management, pink salmon)
- 870 (harvesting, processing, red sea urchin, green sea urchin, purple sea urchin, NE Pac.)
- 872 (oceanodromous migrations, dispersion, pink salmon, sockeye salmon, NE Pac.)
- 891 (groundfish fisheries, catch statistics, catch/effort, Pac. coast)
- D 99 (foreign fisheries, monitoring, NE Pac.)
- 116 (wind-driven currents, time series analysis, NE Pac.)
- 124 (water circulation, wind-driven currents, computer programs, N Pac.)
- 144 (oceanographic data, environmental conditions, B.C. coast)
- S 2551 (new species, new genus, bivalve molluscs, Pteriomorpha)
- 2567 (progress reports, research, killer whale, N Pac.)
- 2610 (phylogeny, paleontology, Cetacea, NE Pac.)
- A 400 (pollution monitoring, legislation, N Pac.)
- Pagophilus groenlandicus* (see Seal, harp)
- Paleontology
- S 2610 (aquatic mammals, Cetacea, NE Pac.)
- 2614 (Cetacea, Africa)
- Pandalopsis dispar* (see Shrimp, sidestripe)
- Pandalus jordani* (see Shrimp, smooth pink)
- platyceros* (see Prawn, spot)
- Panulirus longipes cygnus* (see Lobster, rock)
- Parasites; Parasitism
- B 199 (synopsis, fish parasites, Canada)
- M 1513 (ichthyoparasites, literature reviews, bibliographies, Man.)
- I 106 (codworm, human food, biological vectors)
- S 2522 (new records, new species, short-nose sturgeon, Atlantic sturgeon, Saint John R. estuary, N.B.)
- 2621 (*Labyrinthomyxa* sp., blue mussel, River Bridge, P.E.I.)
- Pathogens
- J 36(2): 222 (vibriosis, sockeye salmon)
- (2): 280 (vibriosis, coho salmon)
- (9): 1102 (agglutinins, furunculosis, Atlantic salmon, Restigouche R., N.B.)
- Pathology
- J 36(5): 587 (IPNV, Atlantic salmon)
- S 2621 (*Labyrinthomyxa* sp., blue mussel, River Bridge, P.E.I.)
- PCBs (see Polychlorinated biphenyls)
- Peace-Athabasca Delta, Alta.
- M 1465 (food control, environmental effects, population structure, freshwater fishes, goldeye, walleye)
- Penaeus* (see Prawns)
- Perca flavescens* (see Perch, yellow)
- Perch, Pacific ocean (*Sebastes alutus*)
- J 36(11): 1395 (age composition, otolith reading, longevity, Vancouver I., B.C.)
- T 879 (storage effects, chilling storage, freezing storage)
- M 1517 (by catch, exploratory fishing, trawling, Vancouver I., B.C.)
- D 112 (fishery surveys, catch statistics, Dixon Entrance - Cape Ommaney, B.C.)
- 118 (fishery surveys, Dixon Entrance - Cape Ommaney, B.C.)
- 120 (fishery surveys, biomass, Hecate Strait, B.C.)

- Perch, yellow (*Perca flavescens*)  
 J 36(2) : 173 (activity patterns, light effects, Cazenovia L., N.Y.)
- Percidae  
 S 2597 (interspecific relationships, niche analysis, walleye)  
 2619 (habitat, geographical distribution, North America)
- Perspectives  
 J 36(1) : 98 (fishery management, fishery development, Pacific salmon, NE Pac.)  
 (3) : 290 (biological sampling, life history, Trichoptera)  
 (3) : 311 (biological sampling, life history, benthic invertebrates)  
 (3) : 318 (life history, taxonomy, aquatic insects)  
 (3) : 321 (life history, toxicity tests, benthic macroinvertebrates)  
 (3) : 329 (life history, environmental effects, benthic macroinvertebrates)  
 (3) : 335 (feeding behavior, life history, aquatic insects)  
 (3) : 342 (life history, conferences, benthic invertebrates)  
 (6) : 699 (fishery management, bio-economics, Canada)  
 (7) : 838 (fishery biology, fishery management, Canada)  
 (8) : 1009 (exploitation, aquatic mammals)
- Pest control  
 S 2530 (pollution effects, fenitrothion, caddis fly larvae)  
 2531 (pollution effects, insecticides, rainbow trout)  
 2587 (pollution effects, methoxychlor, blackfly larvae, Athabasca R., Alta.)
- Pesticides  
 J 36(1) : 77 (dieldrin, toxicity tests, diets, rainbow trout)  
 (3) : 247 (DDT, bioaccumulation, mathematical models, Crustacea)  
 T 886 (organophosphates, chemical extraction)  
 887 (water analysis, chromatographic techniques)  
 S 2519 (DDT, PCBs, fish oils)  
 2530 (fenitrothion, pollution effects, caddis fly larvae)  
 2531 (diflubenzuron, methoprene, pollution effects, rainbow trout)  
 2625 (hydrocarbons, analytical techniques, laboratory equipment)  
 2632 (phosphamidon, methidathion, toxicity, American lobster)  
 2637 (PCBs, hatching, eggs, Atlantic salmon)  
 2638 (pyrethroids, toxicity, lethal limits, Atlantic salmon, American lobster)  
 2646 (toxicity, temperature effects, lethal limits, rainbow trout)
- 2649 (pentachlorophenol, locomotion, oxygen consumption, American eel, N.B.)  
 2651 (fenitrothion, bioaccumulation, excretion, soft-shell clam, blue mussel, freshwater clam)
- Petroleum (see also Pollutants; Pollution; Pollution effects)  
 J 36(12) : 1513 (water samplers, seawater, data processing)  
 S 2521 (pollution effects, mutations, aquatic environment)  
 2582 (hydrocarbons, mutagens, marine organisms)  
 2609 (enzymes, pollution monitoring, cunner)  
 2617 (detoxication, enzymes, AHH)  
 A 403 (environmental effects, baseline studies, pollution monitoring)
- Petromyzonidae (see Lampreys)
- pH  
 J 36(6) : 640 (seasonal variations, snowmelt, Ont.)  
 T 892 (bioassays, copper toxicity, *Hyalella azteca*)
- Phagocytosis  
 S 2624 (*Pseudomonas perolens*, American lobster)
- Phenols  
 S 2590 (toxicants, bioassays, rainbow trout)  
 2602 (chemical composition)  
 2631 (creosote, toxicity, lethal limits, American lobster, sand shrimp, N.B.)
- Phenotypes  
 J 36(5) : 544 (polymorphism, enzymes, steel-head trout)
- Phoca hispida* (see Seal, ringed)
- Phocanema decipiens* (codworm) (see Nematoda)
- Phocoena phocoena* (see Porpoise, harbor)
- Phosphorus; Phosphorus compounds  
 J 36(2) : 225 (phosphorus loading, mathematical models, lakes, Northern Hemisphere)  
 (3) : 286 (eutrophication, Great Lakes, America)  
 (8) : 970 (trophic levels, kinetics, L. Memphremagog, Que.-Vt.)  
 (8) : 1002 (availability, sediments, macrophytes)  
 (11) : 1364 (nutrient deficiency, algae)
- Phosphorus cycle  
 J 36(8) : 1002 (sediments, macrophytes)  
 (11) : 1336 (phytoplankton, L. Ontario)

- Photoperiodicity**  
 J 36(11): 1347 (enzymes, gills, chinook salmon)
- Photosynthesis**  
 D 137 (phytoplankton, Experimental Lakes Area, NW Ont.)  
 S 2605 (seasonal variations, phytoplankton, inlets, Japan)
- Phylogeny**  
 S 2610 (Cetacea, NE Pac.)  
 2614 (Cetacea, Africa)
- Physeter catodon** (see Whale, sperm)
- Physiology**  
 J 36(1): 84 (acidity, pollution effects, rainbow trout)  
 (6): 605 (ozone, toxicity, rainbow trout)  
 (6): 615 (toxicity, naphthalene, mummichog)
- Phytoplankton** (see also Primary production)  
 J 36(1): 1 (ecological distribution, Vancouver Harbor, B.C.)  
 (2): 180 (carbon, ATP, St. Lawrence R. estuary)  
 (3): 286 (growth, limiting factors, phosphorus, Great Lakes)  
 (6): 657 (planktonology, Strait of Georgia, B.C.)  
 (8): 883 (blue-green alga, Porvoo, Gulf of Finland)  
 (10): 1169 (temperature optima, seasonal variations, L. Michigan, Ill.)  
 (10): 1228 (continental shelves, environmental effects, light intensity, NW Atl.)  
 (11): 1325 (variations, vertical distribution, St. Lawrence R. estuary)  
 (11): 1336 (phosphorus cycle, L. Ontario)  
 T 880 (planktonology, primary production, Great Central L., Vancouver I., B.C.)  
 M 1503 (check lists, freshwater lakes, Man., Ont.)  
 D 155 (quantitative distribution, check lists, sea ice, Frobisher Bay)  
 S 2548 (catabolism, aromatics, *Isochrysis galbana*, *Navicula incerta*)  
 2561 (growth, oil pollution, arctic Canada, Alaska)  
 2594 (quantitative distribution, time series analysis, chlorophylls)  
 2603 (quantitative distribution, environmental effects, St. Margaret's Bay, N.S.)  
 2604 (horizontal distribution, biomass, environmental effects, St. Margaret's Bay, N.S.)  
 2605 (photosynthesis, seasonal variations, Japan)  
 2647 (bioaccumulation, *Gonyaulax*, Bay of Fundy)
- Pike, northern (*Esox lucius*)**  
 J 36(5): 481 (energy budget, dynamics, Lac Ste. Anne, Alta.)  
 (6): 670 (mercury, pollution monitoring, Ball L., Ont.)  
 M 1531 (mercury compounds, bioaccumulation, Southern Indian L., Man.)
- Pimephales promelas*** (see Minnow, fathead)
- Pituitary gland**  
 S 2528 (chinook salmon, growth regulators, coho salmon)
- Placopecten magellanicus*** (see Scallop, sea)
- Plankton** (see also Ichthyoplankton; also Phytoplankton; also Zooplankton)  
 J 36(2): 187 (quantitative distribution, nutrients, water circulation, Gulf of St. Lawrence)  
 A 405 (stock assessment, N.W.T., Y.T.)
- Plankton collecting devices**  
 J 36(1): 81 (ichthyoplankton)
- Plankton feeders**  
 J 36(9): 1029 (feeding behavior, golden shiner, Mich.)
- Planktonology**  
 T 816 (biological surveys, primary production, L. Tanganyika, Tanzania)  
 880 (phytoplankton, primary production, Great Central L., Vancouver I., B.C.)
- Plant control**  
 M 1478 (2,4-D, Eurasian milfoil, Okanagan L., B.C.)
- Poisons (biological)**  
 J 36(1): 32 (paralytic shellfish poison, *Gonyaulax*, biochemical analysis, sea scallop, Bay of Fundy)  
 D 127 (paralytic shellfish poison, monitoring, Maritime Provinces)  
 S 2532 (saxitoxin, *Gonyaulax*, heterogeneity, clams, mussels, Prince Rupert, B.C.)  
 2636 (salinity effects, growth, saxitoxin, *Gonyaulax*, Cape Ann, Mass.)  
 2647 (bioaccumulation, toxicity testing, phytoplankton, zooplankton, *Gonyaulax*, Bay of Fundy)
- Pollachius virens*** (see Pollock)
- Pollock (*Pollachius virens*)**  
 J 36(10): 1207 (energy budget, liver, condition factor)
- Pollock, walleye (*Theragra chalcogramma*)** (Alaska pollock)  
 J 36(9): 1065 (stock assessment, acoustics)  
 T 851 (roe, processing, Japan)  
 852 (quality control, frozen products)



- M 1518 (juveniles, growth, seasonal variations, Stuart Channel, B.C.)  
 D 106 (fishery surveys, catch statistics, Queen Charlotte Sound, B.C.)  
 136 (biological data, catch statistics, Strait of Georgia, B.C.)
- Pollutants; Pollution; Pollution effects  
 J 36(1) : 84 (sublethal effects, acidity, physiology, rainbow trout)  
 (9) : 1040 (chemical pollutants, bioaccumulation, mathematical models, fathead minnow)  
 (9) : 1049 (pulpmill effluents, coho salmon)  
 (9) : 1089 (coal ash, benthos, mosquito-fish, Savannah R., S.C.)  
 (11) : 1412 (industrial wastes, organoleptic properties, rainbow trout)  
 (12) : 1519 (biological pollutants, wax esters, Copepoda, Bute Inlet, B.C.)  
 T 831 (pulpmill effluents, salinity effects, avoidance behavior, pink salmon)  
 868 (thermal pollution, entrainment, fish larvae, St. Clair R., Ont.)  
 883 (log storage, interstitial environment, Copepoda, Nematoda, Nanaimo R., Vancouver I., B.C.)  
 884 (marine pollution, pulpmill effluents, L'Etang estuary, N.B.)  
 886 (chemical pollutants, chemical extraction, organophosphates)  
 M 1470 (copper, zinc, population density, aquatic insects, Tomogonops R., NW Miramichi R., N.B.)  
 1482 (thermal pollution, entrainment, impingement, Canada)  
 D 142 (mercury, freshwater fishes, anadromous fishes, Labrador)  
 S 2521 (petroleum, mutations, aquatic environment)  
 2530 (fenitrothion, caddis fly larvae)  
 2531 (insecticides, rainbow trout)  
 2539 (herbicides, degradation, soils)  
 2540 (metals, bioaccumulation, shorthorn sculpin, Arctic char, Strathcona Sound, N.W.T.)  
 2547 (detergents, olfaction, lake whitefish)  
 2574 (cadmium, bioaccumulation, brook trout)  
 2582 (hydrocarbons, mutagens, marine organisms)  
 2587 (methoxychlor, aquatic invertebrates, Athabasca R., Alta.)  
 2601 (PCBs, enzymes, brook trout)  
 2615 (alkylhydroxamic acid, brook trout)  
 2631 (creosote, American lobster, sand shrimp, N.B.)  
 2632 (insecticides, American lobster)  
 2633 (aromatics, soft-shell clam, sand shrimp)  
 2637 (PCBs, hatching, eggs, Atlantic salmon)  
 2638 (pyrethroids, toxicity, Atlantic salmon, American lobster)
- 2649 (pentachlorophenol, American eel, N.B.)
- Pollution monitoring  
 J 36(6) : 670 (mercury, walleye, northern pike, lake whitefish, Ball L., Ont.)  
 (9) : 1023 (lead, bioaccumulation, spotted wolffish, Greenland)  
 (9) : 1149 (metals, kidney, deepwater calico scallop, bay scallop)  
 M 1494 (environmental surveys, Babine L., B.C.)  
 D 86 (bacteria, Atlantic oyster, Maritime Provinces 1977)  
 123 (bacteria, Atlantic oyster, Maritime Provinces 1978)  
 S 2609 (enzymes, petroleum, cunner)  
 2635 (heavy metals, indicator species, field horsetail)  
 A 400 (marine environment, legislation, 200-mile fishing zone, N Pac.)  
 403 (petroleum, analytical techniques, biological indicators)
- Polychaeta  
 J 36(8) : 869 (morphology, distribution, new records, Sabellidae, NE Pac.)  
 (12) : 1503 (life history, feeding behavior, maldanid polychaetes, St. Margaret's Bay, N.S.)
- Polychlorinated biphenyls (PCBs)  
 S 2519 (behavior, fish oils, human food)  
 2601 (pollution effects, enzymes, brook trout)  
 2637 (hatching, eggs, Atlantic salmon)  
 2639 (human adipose tissue, population density)
- Polymorphism  
 J 36(5) : 544 (enzymes, phenotypes, steelhead trout)  
 (10) : 1214 (divergence, sympatric populations, lake whitefish, Y.T.)
- Population characteristics  
 J 36(4) : 404 (stock assessment, mathematical models, harp seal)  
 T 848 (variance analysis, Pacific herring, B.C.)  
 885 (biological data, subpopulation, Atlantic mackerel, NW Atl.)  
 S 2564 (Mediterranean monk seal, Mediterranean Sea, Aegean Sea, Atlantic)
- Population control  
 T 838 (exotic species, Man.)  
 M 1498 (predation, sunflower starfish, green sea urchin)
- Population density  
 J 36(6) : 694 (statistical sampling, opossum shrimp, L. Michigan)  
 (12) : 1454 (benthos, biological sampling, data processing)  
 T 837 (aerial surveys, aquatic mammals, Cornwallis I., N.W.T.)

- M 1470 (aquatic insects, pollution effects, Tomogonops R., NW Miramichi R., N.B.)
- 1480 (fishery surveys, abalone, Queen Charlotte Is., Banks I., B.C.)
- 1490 (fishery surveys, abalone, Queen Charlotte Is., B.C.)
- D 91 (juveniles, Atlantic salmon, Miramichi R. system, N.B.)
- 105 (juveniles, Atlantic salmon, streams, N.S.)
- 117 (juveniles, Atlantic salmon, Restigouche R. system, N.B.)
- 149 (benthos, intertidal environment, Nanaimo R., Vancouver I., B.C.)
- S 2516 (annual variations, ringed seal, Amundsen Gulf, N.W.T.)
- 2639 (PCBs, human adipose tissue)
- Population dynamics**
- J 36(6) : 647 (mathematical models, spiny dogfish, B.C.)
- (8) : 955 (fecundity, reproduction, blue mussel, green sea urchin, snow crab, Nfld., N.S.)
- (8) : 1009 (aquatic communities)
- (12) : 1431 (zooplankton, *Diaptomus connexus*, saline waters, Waldsea L., Sask.)
- T 792 (larvae, American oyster, Bideford R., P.E.I.)
- 793 (larvae, American oyster, Bideford R., P.E.I.)
- 794 (larvae, American oyster, Bideford R., P.E.I.)
- 795 (larvae, American oyster, Bideford R., P.E.I.)
- 796 (larvae, American oyster, Bideford R., P.E.I.)
- 797 (larvae, American oyster, Bideford R., P.E.I.)
- T 800 (historical account, Atlantic herring, Gulf of St. Lawrence)
- M 1504 (pink salmon, Masset Inlet, Queen Charlotte Is., B.C.)
- S 2536 (predators, capelin, ICNAF Subareas 2 and 3)
- 2542 (exploitation, lake trout, Canada)
- 2560 (stock assessment, capelin, SE Grand Bank)
- 2586 (sexual maturity, spawning, haddock, S Grand Bank)
- 2598 (mathematical models, harvesting)
- Population genetics**
- J 36(5) : 552 (growth, selective fishing, mathematical models, brown trout, Au Sable R., Mich.)
- (11) : 1313 (muscle proteins, Pacific oyster)
- Population number**
- T 826 (juveniles, Pacific salmon, Strait of Georgia, Fraser R., B.C.)
- M 1475 (salmonids, Squamish R., B.C.)
- 1519 (benthic invertebrates, L. Ontario)
- Population structure**
- J 36(1) : 54 (time series analysis, catch statistics, striped bass, NW Atl.)
- T 800 (Atlantic herring, Gulf of St. Lawrence)
- 872 (pink salmon, sockeye salmon, NE Pac.)
- M 1440 (lake trout, Great Bear L., Great Slave L., N.W.T.)
- 1456 (Arctic char, N.W.T.)
- 1465 (age composition, goldeye, walleye, Peace-Athabasca delta, Alta.)
- 1500 (fishery surveys, abalone, Banks I., B.C.)
- D 150 (tagging, Pacific cod, Strait of Georgia, B.C.)
- 153 (Arctic char, Tree R., N.W.T.)
- 156 (Arctic char, Jayco R., N.W.T.)
- S 2560 (spawning population, capelin, SE Grand Bank)
- 2583 (haddock, S Grand Bank)
- Porcupine River, Y.T.**
- T 791 (identification keys, larvae, chironomids, watersheds)
- Porpoise, harbor (*Phocoena phocoena*)**
- J 36(2) : 158 (diagnostic enzymes, tissues)
- Power plants**
- T 842 (environmental effects, spawning grounds, Salmonidae, Puntledge R., Vancouver I., B.C.)
- 868 (thermal pollution, fish larvae, St. Clair R., Ont.)
- M 1482 (thermal pollution, entrainment, impingement, Canada)
- S 2599 (environmental effects, Cumberland Basin, Bay of Fundy)
- Prairie Provinces (see also Alberta; Manitoba; Saskatchewan)**
- S 2630 (eutrophic lakes, algal blooms, mortality causes, rainbow trout)
- Prawn, freshwater (*Macrobrachium rosenbergii*)**
- J 36(9) : 1080 (molting, activity patterns, dispersion)
- Prawn, spot (*Pandalus platyceros*)**
- M 1521 (exploratory fishing, trap fishing, potential resources, B.C.)
- Prawns (see also names of species)**
- J 36(7) : 789 (fishery economics, fishery management, limited entry, *Penaeus*, Western Australia)
- (11) : 1304 (prawn fishery, bioeconomic model, *Penaeus*, *Metapenaeus*, Gulf of Carpentaria, Australia)
- Precipitations (atmospheric)**
- M 1486 (chemical analysis, Flin Flon, Man.)
- D 104 (chemical analysis, Saqvaqjuac, N.W.T.)

## Predation; Predators

- J 36(4) : 392 (food organisms, feeding behavior, streams, brown trout)  
 (4) : 470 (food preference, numerical analysis)  
 (5) : 537 (feeding behavior, rock crab, American lobster, sea scallop)  
 (9) : 1029 (prey selection, feeding behavior, golden shiner, Mich.)  
 (10) : 1191 (brook trout, crayfish, Mich.)  
 (11) : 1319 (fouling organisms, *Carcinonemertes errans*, eggs, Dungeness crab)  
 (12) : 1516 (bioaccumulation, methylmercury, northern pike, carp)  
 M 1498 (feeding behavior, sunflower starfish, green sea urchin)  
 S 2536 (population dynamics, capelin, ICNAF Subareas 2 and 3)

## Preservation(fishery products)

- J 36(2) : 219 (sodium compounds, freezing storage, Pacific herring)  
 T 821 (formaldehyde, processing, roe, Pacific herring)  
 855 (chilling storage, short-finned squid)  
 867 (food additives, chilled products, storage effects)

## Primary production (see also Phytoplankton)

- J 36(2) : 187 (Gulf of St. Lawrence)  
 T 803 (habitat improvement, upwelling, Great Central L., Vancouver I., B.C.)  
 816 (planktonology, L. Tanganyika, Tanzania)  
 865 (oligotrophic lakes, B.C.)  
 D 87 (phytoplankton, biomass, nutrients, St. Margaret's Bay, N.S.)  
 93 (phytoplankton, nutrients, experimental data, Bedford Basin, N.S.)  
 114 (phytoplankton, experimental data, Labrador Sea)  
 137 (phytoplankton, Experimental Lakes Area, NW Ont.)  
 S 2524 (phytoplankton, limiting factors, fresh water, World Inland Waters)  
 2562 (phytoplankton, seasonal variations, Frobisher Bay, arctic Canada)  
 2588 (mathematical models, incubator technique, Experimental Lakes Area, NW Ont.)  
 2645 (eutrophication, Experimental Lakes Area, NW Ont.)

## Prince Edward Island (Province), Canada (see also Bideford River; Maritime Provinces)

- S 2621 (mortality, parasites, *Labyrinthomyxa* sp., blue mussel, River Bridge)

## Processing fishery products

- T 821 (roe, quality control, formaldehyde, Pacific herring)  
 851 (roe, Alaska pollock, Japan)  
 866 (curing, quality control, Atlantic

herring)

- 870 (roe, red sea urchin, green sea urchin, purple sea urchin, NE Pac.)  
 877 (roe, frozen products, red sea urchin)  
 I 100 (canning, sauces, Atlantic herring)  
 S 2519 (fish oils, human food, insecticides)  
 2526 (fish deboners, minced products, quality control)  
 2568 (quality control, salt minced fish)  
 CHN 68 (minced products, curing, Gadidae)

## Production(biological)

- J 36(2) : 132 (smolts, Atlantic salmon)  
 (5) : 488 (limiting factors, juveniles, chum salmon, Nanaimo R. estuary, Vancouver I., B.C.)  
 (5) : 497 (meiofauna, juveniles, chum salmon, Nanaimo R. estuary, Vancouver I., B.C.)  
 (5) : 504 (juveniles, chum salmon, Nanaimo R. estuary, Vancouver I., B.C.)  
 (10) : 1238 (indicator species, environmental conditions, blue mussel)  
 (10) : 1256 (copepods, Burlington Canal, Ont.)  
 (12) : 1431 (zooplankton, *Diaptomus connexus*, saline water, Waldsea L., Sask.)  
 T 812 (rearing, smolts, sockeye salmon, Babine L., B.C.)  
 832 (fish culture, coho salmon, Vancouver I., B.C.)  
 M 1491 (environmental effects, soft-shell clam, Eel R. Cove, N.B.)  
 I 103 (oyster culture, aquaculture techniques, Pacific oyster, B.C.)

*Prosopium coulteri* (see Whitefish, pygmy)

## Proteins

- J 36(5) : 574 (vitellogenin, blood, Atlantic salmon)  
 (11) : 1313 (muscular system, population genetics, Pacific oyster)  
 S 2520 (fishery products, analytical techniques)  
 2571 (detoxication, rapeseed meal)  
 2628 (amino acids, food, rainbow trout, Erickson-Elphinstone, Man.)

## Protozoa

- B 199 (synopsis, fish parasites, Canada)  
 M 1513 (ichthyoparasites, literature reviews, bibliographies, Man.)  
 S 2552 (cryptomonad starch, autolysis, *Chroomonas salina*)

*Pseudomonas* (see Bacteria; see also Diseases; Disease control)

## Pteriormorphia (see Mollusca)

## Pulpmill effluents (see Industrial wastes; see also Pollutants; Pollution; Pollution effects)

*Pycnopodia helianthoides* (see Starfish, sunflower)

## Q

## Quality control

- J 36(2) : 219 (rancidity, Pacific herring)  
 T 852 (frozen products, temperature effects, walleye pollock)  
 855 (storage effects, short-finned squid)  
 866 (curing, Atlantic herring)  
 I 106 (codworm, Atlantic cod)  
 S 2526 (minced products, fish deboners)  
 2568 (holophilic microorganisms, salt minced fish)  
 CHN 63 (human food, fishery products, Atlantic mackerel)  
 69 (minced products, freezing storage, Atlantic cod)  
 70 (chilled products, fishes)  
 71 (hypobaric storage, fishery products)

Quebec (Province), Canada (see also Memphremagog, Lake; Saguenay Fjord)

- J 36(12): 1439 (mineral composition, scales, subpopulation, lake whitefish, La Grande R.)

Queen Charlotte Islands; Queen Charlotte Sound; Queen Charlotte Strait, B.C.)

- M 1450 (biological data, water quality, spawning, chum salmon, Mathers Creek, Pallant Creek)  
 1480 (fishery surveys, population density, size distribution, abalone)  
 1490 (fishery surveys, population density, size distribution, abalone)  
 1504 (population dynamics, pink salmon, Masset Inlet)  
 D 106 (fishery surveys, stock assessment, Pacific herring, rockfishes, spiny dogfish, walleye pollock, chinook salmon)  
 110 (fishery surveys, catch composition, marine fishes, rockfishes)  
 113 (fishery surveys, stock assessment, Dover sole)  
 130 (fishery surveys, stock assessment, Pacific herring)  
 132 (habitat, spawning escapement, rivers, Statistical Area 1, Queen Charlotte Is.)  
 138 (fishery surveys, fish catch statistics, biological data)  
 152 (fishery surveys, oceanographic data, catch statistics, smooth pink shrimp)

## R

*Raja radiata* (see Skate, thorny)

Rapeseed (*Brassica* spp.)

- S 2571 (detoxication, proteins, rapeseed meal)  
 2578 (rapeseed oils, sterols)

## Recirculating systems

- T 801 (aquaculture techniques, literature reviews, bibliographies, salmonids)

## Records, new (see New records)

## Recruitment

- M 1524 (mathematical models, yield predictions, sockeye salmon, Rivers Inlet, B.C.)

*Reinhardtius hippoglossoides* (see Halibut, Greenland)

## Reports

- T 813 (research institutions, Fisheries and Marine Service, Western Region, Winnipeg, Man.)

## Reproduction (biology)

- J 36(8) : 955 (blue mussel, green sea urchin, snow crab, Nfld., N.S.)  
 S 2516 (annual variations, population density, ringed seal, Amundsen Gulf, N.W.T.)  
 2549 (temperature effects, *Hyaella azteca*)

## Reservoirs (water)

- D 108 (ATP, nutrients, Southern Indian L., Man.)  
 158 (limnological data, physical properties, Southern Indian L., Man.)

## Resource conservation

- M 1483 (fishery resources, highways, environmental effects)  
 1484 (fishery resources, watersheds, coho salmon, Black Creek, Vancouver I., B.C.)  
 S 2613 (season regulations, sperm whale, World Oceans)

## Resource development

- J 36(10): 1265 (aquaculture techniques, sockeye salmon, chinook salmon, Frazer L., Kodiak I., Alaska)  
 T 807 (watersheds, environmental effects, Pacific salmon, B.C.)  
 815 (shellfish culture, feasibility, blue mussel, B.C.)  
 M 1456 (fishery surveys, Arctic char, N.W.T.)

## Resource management (see also Fishery management)

- T 769 (whaling statistics, exploitation, beluga, Mackenzie R. estuary, N.W.T.)  
 806 (seaweeds, harvesting, Irish moss, N.S.)  
 884 (marine pollution, L'Etang estuary, N.B.)  
 S 2611 (stock assessment, minke whale, Southern Hemisphere)  
 2620 (fisheries, economics, Canada)

- Respiratory organs  
J 36(9) : 1072 (gills, electron microscopy, rainbow trout)  
(11) : 1347 (temperature effects, photo-periodicity, enzymes, chinook salmon)
- Rheotropism  
J 36(1) : 63 (chemical stimuli, ovarian fluid, rainbow trout)
- Ribonucleic acid (RNA) (see also Nucleic acids)  
J 36(6) : 689 (liver, rainbow trout, brown trout)  
(11) : 1390 (viral diseases, golden shiner)
- Rockfish, yellowtail (*Sebastes flavidus*)  
J 36(4) : 377 (aging methods, otolith reading)  
T 879 (chilling storage, freezing storage)
- Rockfishes (*Sebastes* spp.) (see also names of species)  
D 106 (fishery surveys, catch statistics, Queen Charlotte Sound, B.C.)  
110 (fishery surveys, catch composition, Queen Charlotte Is., B.C.)  
112 (fishery surveys, catch statistics, Dixon Entrance - Cape Ommaney, B.C.)  
118 (fishery surveys, Dixon Entrance - Cape Ommaney, B.C.)
- Roe  
T 821 (processing, preservatives, Pacific herring)  
851 (processing, Alaska pollock, Japan)  
870 (processing, red sea urchin, green sea urchin, purple sea urchin)  
877 (processing, frozen products, red sea urchin)  
M 1476 (quality, green sea urchin, NE Pac., B.C.)  
1493 (yield predictions, Pacific herring, B.C.)
- S
- Saanich Inlet, B.C.  
T 830 (growth, marine environment, juveniles, Pacific salmon)
- Sabellastarte* sp. (Polychaeta)  
J 36(8) : 869 (new records, NE Pac.)
- Sabellidae (see Polychaeta)
- Sablefish (*Anoplopoma fimbria*) (blackcod)  
M 1517 (exploratory fishing, trawling, Vancouver I., B.C.)
- Saguenay Fjord, Que.  
J 36(1) : 42 (water circulation, water exchange)  
(10) : 1250 (organic matter, sediments)
- S 2553 (geochemistry, suspended matter)  
2557 (mercury, geochemistry)  
2595 (heavy metals, quantitative distribution, dynamics)
- Saint John River; Saint John River Estuary, N.B.  
T 819 (fishery management, economics, Atlantic salmon, Saint John R.)  
S 2522 (parasites, new records, new species, shortnose sturgeon, Atlantic sturgeon, Saint John R. estuary)
- Salinity; Salinity effects  
J 36(6) : 615 (osmoregulation, naphthalene, toxicity, mummichog)  
T 829 (geographical distribution, fishes, Hudson Bay)  
831 (pulpmill effluents, avoidance behavior, pink salmon)  
869 (St. Georges Bay, N.S.)  
S 2636 (growth, saxitoxin, *Gonyaulax*, Cape Ann, Mass.)
- Salmo clarki bouvieri* (see Trout, cutthroat)  
*clarki lewisi* (see Trout, cutthroat)  
*gairdneri* (see Trout, rainbow; Trout, steelhead)  
*salar* (see Salmon, Atlantic)  
*trutta* (see Trout, brown)
- Salmon (Pacific in general) (*Oncorhynchus* spp.)  
J 36(1) : 98 (fishery management, fishery development, NE Pac.)  
(4) : 384 (purse seines, fishing operations, B.C.)  
(7) : 754 (limited entry, fishery management, B.C.)  
(7) : 764 (fishery regulations, economic analysis, fishery management, Canada)  
T 807 (environmental effects, land development, watersheds, B.C.)  
810 (culverts, fishways, environmental effects, B.C.)  
811 (fishways, culverts, guidelines, B.C.)  
826 (geographical distribution, population number, juveniles, Strait of Georgia, Fraser R., B.C.)  
830 (growth, marine environment, juveniles, Strait of Georgia, Saanich Inlet, B.C.)  
839 (fishery resources, fishery management, Nitinat L., Vancouver I., B.C.)  
840 (migrations, monitoring, tagging, Quinsam R., Vancouver I., B.C.)  
845 (rearing, experimental fish-farming 1977, B.C.)  
861 (transfers, fish eggs, juveniles, B.C.)  
M 1487 (bibliographies, life history, fresh water, B.C.)  
1527 (fishery management, stream flow, Sooke R., Vancouver I., B.C.)  
D 97 (mortality causes, entrainment, canals, Seton R., B.C.)

- 111 (catch statistics, intertidal environment, Strait of Georgia, B.C.)
- 115 (habitat, spawning, escapement, rivers, Statistical Area 29, New Westminster, B.C.)
- 119 (catch statistics, biological data, juveniles, Strait of Georgia, Nanaimo, B.C.)
- 128 (catch statistics, biological data, juveniles, Strait of Georgia, Nanaimo, B.C.)
- 132 (habitat, spawning, escapement, rivers, Statistical Area 1, Queen Charlotte Is., B.C.)
- 133 (habitat, spawning, escapement, rivers, Mission-Harrison sub-district, B.C.)
- 136 (biological data, catch statistics, Strait of Georgia, B.C.)
- 143 (habitat, spawning, escapement, rivers, Statistical Area 25, Tahsis, B.C.)
- 151 (habitat, spawning, escapement, rivers, Kamloops sub-district, B.C.)
- 157 (environmental effects, logging, Carnation Creek, Vancouver I., B.C.)
- I 107 (fish culture, manuals, B.C.)
- Salmon, Atlantic (*Salmo salar*)
- J 36(2) : 132 (smolts, biological production, potential yield)
- (3) : 280 (vibriosis, pathogens)
- (4) : 422 (geographical distribution, World Waters)
- (5) : 574 (vitellogenin, blood, analytical techniques)
- (5) : 587 (IPNV, pathology)
- (9) : 1102 (furunculosis, pathogens, agglutinins, Restigouche R., N.B.)
- (11) : 1408 (feeding behavior, juveniles, streams)
- (12) : 1464 (bacterial kidney disease, fluorescent antibody technique, Margaree R., N.S.)
- T 817 (catch statistics, Labrador)
- 819 (fishery management, economics, Saint John R., N.B.)
- 841 (rearing, aquaculture techniques, water temperature, Mersey Hatchery, N.S.)
- M 1523 (fishways, habitat improvement, estuaries, Sheet Harbour, N.S.)
- D 59 (spawning migrations, monitoring, Nfld.)
- 60 (sport fishing statistics, angling, catch/effort, Nfld., Labrador)
- 91 (population density, stock assessment, Miramichi R. system, N.B.)
- 105 (population density, juveniles, streams, N.S.)
- 117 (juveniles, population density, Restigouche R. system, N.B.)
- 126 (age composition, Restigouche R. system, N.B.)
- 147 (sport fishing statistics, angling, catch/effort, Nfld., Labrador)
- S 2584 (stock identification, indicator species, *Anisakis simplex*)
- 2634 (fry, temperature effects, thermoregulation)
- 2637 (eggs, hatching, PCBs)
- 2638 (pyrethroids, toxicity, lethal limits)
- A 399 (fishery management, Nfld., Labrador)
- Salmon, chinook (*Oncorhynchus tshawytscha*)
- J 36(9) : 1060 (spawning migrations, telemetry, Snake R., Wash.)
- (10) : 1265 (stocking, resource development, Frazer L., Kodiak I., Alaska)
- (11) : 1347 (gill ATP, temperature effects, photoperiodicity)
- T 759 (conferences, fishery biology, fishery management)
- 842 (fish culture, spawning channels, power plants, Puntledge R., Vancouver I., B.C.)
- 846 (toxicity tests, bioassays, sodium compounds)
- 850 (tagging, stock assessment, Cowichan-Koksilah R. system, B.C.)
- M 1474 (sport fishing statistics, catch/effort, manuals, Strait of Georgia)
- 1508 (rearing, habitat, flood plains, Adams R., Shuswap L., B.C.)
- 1509 (tagging, rearing, juveniles, Atnarko R., B.C.)
- D 98 (migrations, environmental effects, stream flow, Nicola R., B.C.)
- 106 (fishery surveys, catch statistics, Queen Charlotte Sound, B.C.)
- 134 (fishery resources, research programs, tagging, B.C.)
- S 2528 (pituitary gland, growth regulators, coho salmon)
- Salmon, chum (*Oncorhynchus keta*)
- J 36(5) : 488 (detritus, food chains, harpacticoids, Nanaimo R. estuary, Vancouver I., B.C.)
- (5) : 497 (detritus, food availability, Nanaimo R. estuary, Vancouver I., B.C.)
- (5) : 504 (carbon, food chains, Nanaimo R. estuary, Vancouver I., B.C.)
- (9) : 1097 (VEM, hatcheries, Puget Sound, Wash.)
- T 752 (rearing, juveniles, Big Qualicum R., Vancouver I., B.C.)
- 824 (migrations, feeding behavior, mortality, Big Qualicum R., Vancouver I., B.C.)
- M 1450 (spawning, Mathers Creek, Pallant Creek, Queen Charlotte Is., B.C.)
- 1499 (fishery management, biophysics, habitat, Norrish Creek, B.C.)
- Salmon, coho (*Oncorhynchus kisutch*)
- J 36(3) : 280 (vibriosis, pathogens)
- (5) : 592 (decompression stress, fibrinolysis)

- (9) : 1049 (pollution effects, pulpmill effluents)  
 T 759 (conferences, fishery biology, fishery management)  
 832 (fish culture, escapement, biological production, Vancouver I., B.C.)  
 842 (fish culture, spawning channels, power plants, Puntledge R., Vancouver I., B.C.)  
 850 (tagging, stock assessment, Cowichan-Koksilah R. system, B.C.)  
 M 1469 (tagging, spawning, escapement, Squamish R., B.C.)  
 1474 (sport fishing statistics, catch/effort, manuals, Strait of Georgia, B.C.)  
 1484 (fishery resources, resource conservation, watersheds, Black Creek, Vancouver I., B.C.)  
 1495 (growth, temperature effects)  
 1497 (tagging, migrations, juveniles, Kakweiken R., B.C.)  
 1499 (fishery management, biophysics, habitat, Norrish Creek, B.C.)  
 1506 (tagging, migrations, juveniles, Keogh R., Vancouver I., B.C.)  
 1507 (tagging, migrations, juveniles, Chemainus R., Vancouver I., B.C.)  
 1508 (rearing, habitat, flood plains, Adams R., Shuswap L., B.C.)  
 D 96 (mortality causes, pumps, waste water)  
 134 (fishery resources, research programs, tagging, B.C.)  
 S 2523 (new records, Frost Fish Creek, Digdeguash R., N.B.)  
 2528 (growth regulators, hormones, pituitary gland, chinook salmon)
- Salmon, pink (*Oncorhynchus gorbuscha*)  
 J 36(10) : 1283 (introduced species, meristic counts, morphology, L. Superior)  
 T 814 (evolution, speciation, Arctic char)  
 820 (body size, limiting factors, fishery management, Pac.)  
 831 (avoidance behavior, pollution effects, salinity effects)  
 871 (gravel incubators, Tsolum R., Vancouver I., B.C.)  
 872 (oceanodromous migrations, dispersion, NE Pac.)  
 M 1497 (incubation, Kakweiken R., B.C.)  
 1504 (population dynamics, Masset Inlet, Queen Charlotte Is., B.C.)  
 S 2529 (locomotion, recording equipment)
- Salmon, sockeye (*Oncorhynchus nerka*)  
 J 36(2) : 222 (disease control, vibriosis, pathogens)  
 (9) : 1145 (echo surveys, acoustics, escapement, L. Washington, Wash.)  
 (10) : 1265 (stocking, resource development, Frazer L., Kodiak I., Alaska)  
 T 717 (orientation behavior, migrations, subpopulation, Babine L., B.C.)
- 803 (habitat improvement, upwelling, Great Central L., B.C.)  
 812 (fishery management, rearing, sockeye salmon, Babine L., B.C.)  
 827 (fishery management, habitat improvement, nursery grounds, B.C., Y.T.)  
 847 (copper, osmoregulation, growth, Babine L., B.C.)  
 865 (nursery grounds, environmental surveys, B.C.)  
 872 (oceanodromous migrations, dispersion, NE Pac.)  
 880 (fertilization, nursery grounds, Great Central L., Vancouver I., B.C.)  
 888 (midwater trawls, stock assessment, lakes, B.C.)  
 M 1524 (recruitment, yield predictions, mathematical models, Rivers Inlet, B.C.)
- Salmonidae  
 J 36(8) : 948 (swimming, orientation behavior, ocean pens, Norway)  
 (9) : 1137 (fry, temperature preference, *Salmo*, *Salvelinus*)  
 (11) : 1405 (water analysis, viruses)  
 T 801 (fish culture, recirculating systems)  
 842 (fish culture, power plants, environmental effects, Puntledge R., Vancouver I., B.C.)  
 M 1475 (feeding behavior, population number, Squamish R., B.C.)  
 1530 (manuals, trap fishing, juveniles, B.C.)
- Salvelinus alpinus* (see Char, Arctic)  
*fontinalis* (see Trout, brook)  
*namaycush* (see Trout, lake)
- Sampling(biological)  
 J 36(3) : 290 (variations, Trichoptera)  
 (3) : 311 (methodology, benthic invertebrates)  
 (12) : 1454 (population density, data processing, benthos)  
 T 790 (bibliographies, zoobenthos)  
 793 (spat, American oyster, Bideford R., P.E.I.)  
 795 (spat, American oyster, Bideford R., P.E.I.)  
 796 (spat, American oyster, Bideford R., P.E.I.)  
 D 122 (fishery surveys, freshwater fishes, lakes, N.S.)  
 139 (lake whitefish, Great Slave L., N.W.T.)  
 154 (collections, groundfish, B.C., E Pac.)
- Sampling(statistical)  
 J 36(4) : 351 (macrobenthos, analytical techniques, Port Victoria, Australia)  
 (6) : 694 (population density, opossum



- shrimp, L. Michigan)  
T 848 (standardization, Pacific herring, B.C.)
- Saskatchewan (Province), Canada (see also Prairie Provinces)  
J 36(12): 1431 (zooplankton, population dynamics, *Diaptomus connexus*, saline waters, Waldsea L.)
- Saxitoxin (see Poisons (biological))
- Scales  
J 36(12): 1439 (mineral composition, sub-population, stock identification, lake whitefish, La Grande R., Que.)
- Scallop, bay (*Argopecten irradians*)  
J 36(9): 1149 (kidney, metals, pollution monitoring)
- Scallop, deepwater calico (*Argopecten gibbosus*)  
J 36(9): 1149 (kidney, metals, pollution monitoring)
- Scallop, sea (*Placopecten magellanicus*) (giant scallop)  
J 36(1): 32 (biochemical analysis, paralytic shellfish poison, Bay of Fundy)  
(5): 537 (prey, rock crab, American lobster)
- Scientific personnel  
MSP 41 (directories, marine sciences, Canada)
- Scomber scombrus (see Mackerel, Atlantic)
- Scotian Shelf (off N.S.)  
J 36(12): 1445 (water mixing, intrusions, vertical mixing)  
T 890 (vertical distribution, echosounding, zooplankton, ichthyoplankton)  
S 2643 (water circulation, geostrophic currents, seasonal variations)
- Sculpin, fourhorn (*Myoxocephalus quadricornis*)  
J 36(1): 37 (entrainment, larvae, Douglas Point, L. Huron)
- Sculpin, shorthorn (*Myoxocephalus scorpius*)  
S 2540 (metals, bioaccumulation, Strathcona Sound, N.W.T.)
- Sea ice  
D 131 (algae, check lists, biological data, Eclipse Sound, N.W.T.)  
146 (algae, check lists, biological data, Eskimo Lakes, N.W.T.)  
155 (phytoplankton, microalgae, Frobisher Bay)
- Seal, bearded (*Erignathus barbatus*)  
T 837 (aerial surveys, population density, Cornwallis I., N.W.T.)
- Seal, grey (*Halichoerus grypus*) (gray seal)  
I 106 (biological vectors, codworm)
- Seal, harbor (*Phoca vitulina*)  
B 200 (life history, biological data, E Canada)
- Seal, harp (*Pagophilus groenlandicus*)  
J 36(4): 404 (stock assessment, population characteristics, mathematical models)  
S 2622 (migrations, Lancaster Sound, N.W.T.)
- Seal, Mediterranean monk (*Monachus monachus*)  
S 2564 (stock assessment, population characteristics, Mediterranean Sea, Aegean Sea, Atlantic)
- Seal, ringed (*Phoca hispida*)  
J 36(10): 1278 (biochemical composition, blood, Herschel I., Y.T.)  
T 837 (aerial surveys, population density, Cornwallis I., N.W.T.)  
S 2516 (population density, annual variations, Amundsen Gulf, N.W.T.)  
2565 (blood volume)  
2563 (breeding, habitat, Viscount Melville Sound, Barrow Strait, Peel Sound, N.W.T.)
- Seaweeds (see also names of species)  
T 806 (harvesting, resource management, N.S.)  
860 (agar, physicochemical properties, chemical extraction, *Gracilaria* sp., B.C.)  
864 (agar, seasonal variations, vegetative production, *Gracilaria* sp., Haines I., B.C.)  
I 96 (fishery surveys, underwater photography, Maritime Provinces)  
S 2546 (fatty acids, N.S. waters)  
2576 (macrophytes, fatty acids, N.S.)  
2653 (enzymes, *Chroomonas salina*, *Hemiselmis virescens*)
- Sebastes alutus* (see Perch, Pacific ocean)  
*flavidus* (see Rockfish, yellowtail) spp. (see Rockfishes)
- Secondary production  
J 36(12): 1425 (benthos, life history, invertebrates)
- Sedimentation  
J 36(2): 204 (sediment transport, environmental effects, sand)  
(10): 1288 (traps, calibration)  
S 2543 (macro-benthos, invertebrates, Harris R., N.W.T.)
- Sediments; Sediment analysis  
J 36(5): 529 (particle composition, size distribution, St. Margaret's Bay, N.S.) (Corrections on J 36(8): 1021)

- (6) : 673 (nitrogen cycle, benthos, tubificids, Ont.)
- (8) : 1002 (phosphorus availability, macrophytes)
- (10) : 1250 (organic matter, St. Lawrence, estuary, Saguenay fjord, Que.)
- S 2518 (arsenic, freshwater lakes, Yellowknife, N.W.T.)
- 2554 (geochemistry, heavy metals, St. Lawrence R. estuary, Gulf of St. Lawrence)
- 2595 (heavy metals, Saguenay fjord, Que., Gulf of St. Lawrence)
- 2629 (humic acid, ash content)
- Seiches
- J 36(10) : 1223 (time series analysis, mathematical models, Port San Juan, Vancouver I., B.C.)
- Seines; Seining
- J 36(4) : 384 (purse seines, fishing operations, Pacific salmon, B.C.)
- D 119 (purse seines, catch statistics, biological data, Pacific salmon, Strait of Georgia, Nanaimo, B.C.)
- 128 (purse seines, catch statistics, biological data, Pacific salmon, Strait of Georgia, Nanaimo, B.C.)
- Selenium; Selenium compounds
- J 36(6) : 689 (bioaccumulation, rainbow trout, brown trout)
- Serological studies
- J 36(5) : 574 (vitellogenin, analytical techniques, Atlantic salmon)
- (6) : 636 (antibodies, rainbow trout)
- (9) : 1102 (bacteria, furunculosis, Atlantic salmon)
- S 2573 (radioimmunoassay, 11-ketotestosterone, sex determination, fishes)
- Sex determination
- S 2573 (radioimmunoassay, 11-ketotestosterone, fishes)
- Shellfish (see also names of species)
- D 127 (toxicity, monitoring program, Maritime Provinces)
- S 2532 (saxitoxin, *Gonyaulax*, heterogeneity, clams, mussels, Prince Rupert, B.C.)
- Shellfish catch statistics
- D 100 (biomass, fishery surveys, smooth pink shrimp, Vancouver I., B.C.)
- 152 (biomass, fishery surveys, smooth pink shrimp, Queen Charlotte Sound, Vancouver I., B.C.)
- Shellfish culture (see also Aquaculture; Aquaculture techniques)
- J 36(1) : 93 (eyestalk ablation, American lobster)
- (8) : 965 (diets, American lobster)
- T 805 (historical account, leases, American oyster, Caraquet Bay, N.B.)
- 815 (feasibility, blue mussel, B.C.)
- 858 (breeding, seed collection, Pacific oyster, Pendrell Sound, B.C.)
- 882 (breeding, seed collection, Pacific oyster, Pendrell Sound, Hotham Sound, Ladysmith Harbour, B.C.)
- I 102 (feasibility, American lobster, N.S.)
- 103 (aquaculture techniques, production, Pacific oyster, B.C.)
- S 2648 (culture tanks, stocking density, growth, American lobster)
- Shellfish fisheries
- J 36(7) : 789 (fishery economics, fishery management, limited entry, prawns, Western Australia)
- (11) : 1304 (prawn fishery, bioeconomic model, *Penaeus*, *Metapenaeus*, Gulf of Carpentaria, Australia)
- T 792 (larvae, yield predictions, spat, American oyster, Bideford R., P.E.I.)
- 793 (spat, biological sampling, American oyster, Bideford R., P.E.I.)
- 794 (larvae, yield predictions, spat, American oyster, Bideford R., P.E.I.)
- 795 (larvae, yield predictions, spat, American oyster, Bideford R., P.E.I.)
- 796 (larvae, yield predictions, spat, American oyster, Bideford R., P.E.I.)
- 797 (larvae, yield predictions, spat, American oyster, Bideford R., P.E.I.)
- 833 (conferences, research programs, short-finned squid, Canada)
- M 1489 (catch/effort, stock assessment, mathematical models)
- 1520 (potential resources, sidestripe shrimp, B.C.)
- 1521 (potential resources, spot prawn, B.C.)
- A 405 (stock assessment, N.W.T., Y.T.)
- Shiner, golden (*Notemigonus crysoleucas*)
- J 36(9) : 1029 (feeding behavior, Mich.)
- (11) : 1390 (viral diseases, RNA)
- Shrimp, opossum (*Mysis relicta*)
- J 36(6) : 694 (population density, vertical distribution, statistical sampling, L. Michigan)
- Shrimp, sand (*Crangon septemspinosa*)
- S 2631 (creosote, toxicity, N.B.)
- 2633 (aromatics, toxicity, lethal limits)
- Shrimp, sidestripe (*Pandalopsis dispar*)
- M 1520 (potential resources, exploratory fishing, B.C.)
- Shrimp, smooth pink (*Pandalus jordani*)
- D 100 (fishery surveys, biomass, fishery

- 145 management, Vancouver I., B.C.)  
(stock assessment, exploratory fishing, Vancouver I., B.C.)
- 152 (fishery surveys, catch statistics, biomass, Vancouver I., Queen Charlotte Sound, B.C.)
- Simulium arcticum* (see Blackfly)
- Skate, thorny (*Raja radiata*)  
S 2607 (metabolism, diphenyl ether)
- Smelt, rainbow (*Osmerus mordax*)  
J 36(1) : 37 (entrainment, larvae, Douglas Point, L. Huron)
- Sodium; Sodium compounds  
J 36(2) : 219 (sodium erythorbate, freezing storage, Pacific herring)  
T 846 (sodium pentachlorophenate, toxicity tests, bioassays)
- Sole, Dover (*Microstomus pacificus*)  
D 112 (fishery surveys, catch statistics, Dixon Entrance - Cape Ommaney, B.C.)  
113 (fishery surveys, stock assessment, Queen Charlotte Is., B.C.)  
118 (fishery surveys, Dixon Entrance - Cape Ommaney, B.C.)
- South Carolina State, USA  
J 36(3) : 270 (trace elements, freshwater fishes)  
(9) : 1089 (pollution effects, coal ash, mosquitofish, benthos)
- Southern Hemisphere  
S 2611 (stock assessment, resource management, minke whale)
- Spawning; Spawning behavior  
T 843 (territoriality, lingcod, Strait of Georgia, B.C.)  
881 (capelin, Nfld.)  
M 1450 (chum salmon, Mathers Creek, Pallant Creek, Queen Charlotte Is., B.C.)  
1469 (tagging, escapement, coho salmon, Squamish R., B.C.)  
D 107 (Pacific herring, Strait of Georgia)  
115 (habitat, escapement, rivers, Pacific salmon, Statistical Area 29, New Westminster, B.C.)  
132 (habitat, escapement, rivers, Pacific salmon, Statistical Area 1, Queen Charlotte Is., B.C.)  
133 (habitat, escapement, rivers, Pacific salmon, Mission-Harrison sub-district, B.C.)  
143 (habitat, escapement, rivers, Pacific salmon, Statistical Area 25, Tahsis, B.C.)  
151 (habitat, escapement, rivers, Pacific salmon, Kamloops sub-district, B.C.)
- S 2586 (haddock, S Grand Bank)
- Spawning grounds  
T 842 (spawning channels, power plants, chinook salmon, coho salmon, steelhead trout, Puntledge R., Vancouver I., B.C.)  
M 1485 (aquatic plants, charts, aerial photography, Pacific herring, Strait of Georgia, B.C.)
- Spawning migrations  
J 36(9) : 1060 (telemetry, chinook salmon, Snake R., Wash.)  
D 59 (monitoring, Atlantic salmon, Nfld.)
- Species, new (see New species)
- Spectroscopic techniques  
S 2533 (enzymes, galactose, enantiomers)  
2570 (photometry, methylmercury, fish tissues)  
2652 (trace elements, mud, marine environment)
- Sperm  
S 2517 (cryogenic preservation, fishes, mammals)
- Spores  
J 36(1) : 88 (staining, *Myxosoma cerebrealis*)
- Sport fishing; Sport fishing statistics  
M 1440 (creel census, population structure, lake trout, Great Bear L., Great Slave L., N.W.T.)  
1474 (catch/effort, manuals, chinook salmon, coho salmon, Strait of Georgia, B.C.)  
1532 (striped bass, Shubenacadie, Gaspereau, Annapolis rivers, N.S.)  
D 60 (angling, catch/effort, Atlantic salmon, Nfld., Labrador)  
103 (monitoring, lake trout, Great Bear L., Great Slave L., N.W.T.)  
147 (catch/effort, angling, Atlantic salmon, Nfld., Labrador)  
153 (angling, Arctic char, Tree R., N.W.T.)
- Squalus acanthias* (see Dogfish, spiny)
- Squid, short-finned (*Illex illecebrosus*)  
T 833 (research programs, reports, conferences, Canada)  
855 (chilling storage, storage effects, quality control)
- Squids (*Illex* spp.)  
T 833 (bibliographies)
- St. Lawrence, Gulf of (see also Magdalen Islands)  
J 36(2) : 122 (nutrients, distribution, water circulation)  
(2) : 187 (primary production, water circulation)  
(6) : 678 (carbon, isotopes, organic

- suspended matter)  
 T 800 (population dynamics, population structure, Atlantic herring)  
 M 1496 (fishing gear, basket dragrakes, Irish moss)  
 S 2537 (tagging, migrations, stock inter-relationships, Atlantic herring)  
 2554 (geochemistry, heavy metals, sediments)  
 2595 (heavy metals, quantitative distribution, dynamics)
- St. Lawrence River Estuary  
 J 36(2) : 180 (carbon, phytoplankton, ATP)  
 (5) : 568 (time series analysis, chlorophylls, water temperature)  
 (10) : 1250 (organic matter, sediments)  
 (11) : 1325 (phytoplankton, variations, vertical distribution)  
 S 2554 (geochemistry, heavy metals, sediments)
- St. Margaret's Bay, N.S.  
 J 36(5) : 529 (sediments, particle composition, size distribution)  
 (12) : 1503 (life history, feeding behavior, maldanid polychaetes)  
 D 87 (phytoplankton, biomass, nutrients)  
 S 2603 (phytoplankton, quantitative distribution, environmental effects)  
 2604 (phytoplankton, horizontal distribution, biomass, environmental effects)
- Staining  
 J 36(1) : 88 (spores, *Myxosoma cerebrales*)
- Starfish, sunflower (*Pycnopodia helianthoides*)  
 M 1498 (feeding behavior, predation, green sea urchin)
- Statistical analysis  
 S 2579 (discriminant analysis, hybridization, genetics)
- Statistical models  
 T 889 (biological systems)
- Steroids  
 S 2573 (11-ketotestosterone, radioimmunoassay, sex determination, fishes)
- Sterols  
 S 2578 (rapeseed oils)
- Stizostedion vitreum vitreum* (see Walleye)
- Stock assessment  
 J 36(4) : 404 (population characteristics, mathematical models, harp seal)  
 (9) : 1065 (acoustics, walleye pollock)  
 (12) : 1490 (acoustics, body size, fishes)  
 T 817 (catch/effort, landing statistics, Arctic char, Atlantic salmon, Labrador)  
 850 (trapping, tagging, smolts, coho salmon, chinook salmon, steelhead trout, Cowichan-Koksilah R. system, B.C.)
- 853 (computer programs, system analysis, fishery management)  
 888 (midwater trawls, collecting devices, sockeye salmon, lakes, B.C.)  
 M 1489 (catch/effort, mathematical models, shellfish fisheries)  
 1491 (fishery surveys, environmental effects, soft-shell clam, Eel R. Cove, N.B.)  
 1493 (fishery management, yield predictions, roe, Pacific herring, B.C.)  
 1500 (population structure, fishery surveys, abalone, Banks I., B.C.)  
 1511 (catch/effort, demersal species, Pacific cod, Strait of Georgia, B.C.)  
 D 91 (juveniles, Atlantic salmon, Miramichi R. system, N.B.)  
 102 (experimental fishing, gillnets, lake whitefish, Great Slave L., N.W.T.)  
 105 (juveniles, Atlantic salmon, streams, N.S.)  
 113 (fishery surveys, Dover sole, Queen Charlotte Is., B.C.)  
 130 (fishery surveys, Pacific herring, Vancouver I., Queen Charlotte Sound, B.C.)  
 145 (biomass, fishery surveys, smooth pink shrimp, Vancouver I., B.C.)  
 S 2537 (interrelationships, biomass, Atlantic herring, SW Nfld., S Gulf of St. Lawrence)  
 2564 (Mediterranean monk seal, Mediterranean Sea, Aegean Sea, Atlantic)  
 2583 (age composition, haddock, S Grand Bank)  
 2585 (witch flounder, ICNAF Divisions 2J, 3K, 3L)  
 2611 (resource management, minke whale, Southern Hemisphere)  
 A 405 (fishery resources, N.W.T., Y.T.)
- Stock identification  
 J 36(12) : 1439 (mineral composition, scales, subpopulation, lake whitefish, La Grande R., Que.)  
 S 2584 (indicator species, *Anisakis simplex*, Atlantic salmon)
- Stocking (organisms) (see also Fish culture)  
 J 36(10) : 1265 (introduced species, sockeye salmon, chinook salmon, Frazer L., Kodiak I., Alaska)  
 T 861 (transfers, eggs, juveniles, Pacific salmon, B.C.)
- Stocking density  
 S 2648 (growth, limiting factors, culture tanks, American lobster)
- Storage; Storage effects  
 T 852 (freezing storage, temperature effects, walleye pollock)  
 855 (chilling storage, quality control,

- short-finned squid)  
 867 (food additives, chilled products, fishery products)  
 879 (chilling storage, freezing storage, Pacific ocean perch, yellowtail rockfish)  
 S 2517 (cryogenic preservation, sperm, fishes, mammals)  
 2534 (refrigerated seawater, thermometers, fish storage)  
 2569 (minced products, Atlantic argentine, roundnose grenadier)  
 2642 (cold storage, embryonic development, hatching, burrowing mayfly)  
 CHN 69 (minced products, freezing storage, quality control, Atlantic cod)  
 70 (fishery products, chilling storage)  
 71 (hypobaric storage, quality control, fishery products)
- Storms  
 J 36(6) : 667 (environmental effects, benthos, Minas Basin, Bay of Fundy)
- Strait of...(see name of strait)
- Strongylocentrotus droebachiensis* (see Urchin, green sea)  
*franciscanus* (see Urchin, red sea)  
*purpuratus* (see Urchin, purple sea)
- Sturgeon, Atlantic (*Acipenser oxyrinchus*)  
 S 2522 (parasites, new records, Saint John R. estuary, N.B.)
- Sturgeon, shortnose (*Acipenser brevirostrum*)  
 S 2522 (parasites, new species, new records, Saint John R. estuary, N.B.)
- Subpopulation  
 J 36(4) : 468 (new records, geographical distribution, pygmy whitefish)  
 (6) : 630 (evolution, karyotypes, Yellowstone cutthroat trout, west-slope cutthroat trout, Yellowstone R., Wyo., Flathead R., Mont.)  
 (12) : 1439 (stock identification, mineral composition, scales, lake whitefish, La Grande R., Que.)  
 T 885 (biological data, Atlantic mackerel, NW Atl.)
- Sucker, white (*Catostomus commersoni*) (longnose sucker)  
 J 36(1) : 37 (entrainment, larvae, Douglas Point, L. Huron)  
 T 836 (dominant species, Ossokmanuan Reservoir, Labrador)
- Superior, Lake, America  
 J 36(10) : 1283 (introduced species, meristic counts, morphology, pink salmon)
- Suspended matter  
 J 36(2) : 211 (size distribution, biochemical composition, Bedford Basin, N.S.)  
 M 1522 (light intensity, attenuation, L. Winnipeg, Man.)  
 S 2553 (geochemistry, Saguenay fjord, Que.)  
 2595 (heavy metals, Saguenay fjord, Que., Gulf of St. Lawrence)
- Sympatric populations  
 J 36(10) : 1214 (polymorphism, divergence, lake whitefish, Y.T.)
- System analysis  
 T 853 (computer programs, stock assessment, fishery management)
- T
- Tagging  
 J 36(9) : 1060 (telemetry, spawning migrations, chinook salmon, Snake R., Wash.)  
 T 840 (migrations, monitoring, fry, Pacific salmon, Quinsam R., Vancouver I., B.C.)  
 850 (stock assessment, coho salmon, chinook salmon, steelhead trout, Cowichan-Koksilah R. system, B.C.)  
 M 1469 (spawning, escapement, coho salmon, Squamish R., B.C.)  
 1497 (migrations, juveniles, coho salmon, Kakweiken R., B.C.)  
 1505 (feasibility, Pacific herring)  
 1506 (migrations, juveniles, coho salmon, Keogh R., Vancouver I., B.C.)  
 1507 (migrations, juveniles, coho salmon, steelhead trout, Chemainus R., Vancouver I., B.C.)  
 1509 (juveniles, chinook salmon, Atnarko R., B.C.)  
 1516 (methodology, mortality, Pacific cod, Strait of Georgia, B.C.)  
 D 134 (research programs, chinook salmon, coho salmon, steelhead trout, B.C.)  
 141 (gear selectivity, spiny dogfish, Strait of Georgia, B.C.)  
 150 (methodology, population structure, Pacific cod, Strait of Georgia, B.C.)  
 156 (Arctic char, Jayco R., N.W.T.)  
 S 2537 (migrations, stock interrelationships, Atlantic herring, SW Nfld., S Gulf of St. Lawrence)  
 2566 (sonic tags, tracking, finback whale)
- Tanganyika, Lake, Tanzania  
 T 816 (biological surveys, planktonology, primary production)
- Tautoglabrus adspersus* (see Cunner)
- Taxonomy  
 J 36(3) : 318 (life history, aquatic insects)  
 (8) : 869 (new records, Sabellidae, NE Pac.)

- B 199 (fish parasites, Canada)  
 T 791 (identification keys, larvae, chironomids, watersheds, Mackenzie R., N.W.T., Porcupine R., Y.T.)  
 823 (identification keys, Calanoida, Bay of Fundy)  
 S 2522 (parasites, shortnose sturgeon, Atlantic sturgeon, Saint John R. estuary, N.B.)  
 2551 (new species, new genus, Pteriomorpha, NE Pac.)  
 2558 (*Aeromonas*, biochemical analysis, oligosaccharides)  
 2644 (new species, *Buchonomyia burmanica*, new subfamily, Buchonomyiinae)
- Telemetry  
 J 36(9) : 1060 (tagging, spawning, migrations, chinook salmon, Snake R., Wash.)  
 S 2566 (sonic tags, tracking, finback whale)
- Temperature; Temperature effects  
 J 36(4) : 366 (body temperature, acclimatization, thermal plumes, L. Michigan)  
 (5) : 568 (water temperature, chlorophylls, covariability, time series analysis, St. Lawrence R. estuary)  
 (9) : 1108 (water temperature, entrainment, striped bass)  
 (9) : 1137 (temperature preference, fry, salmonids)  
 (11) : 1297 (toxicity, cadmium, rainbow trout)  
 (11) : 1347 (enzymes, gills, chinook salmon)  
 (11) : 1400 (enzymes, mummichog)  
 T 852 (freezing storage, quality control, walleye pollock)  
 M 1495 (growth, coho salmon)  
 S 2549 (reproduction, development, *Hyalella azteca*)  
 2634 (temperature gradients, fry, Atlantic salmon)  
 2642 (hatching, burrowing mayfly)  
 2646 (insecticides, toxicity, lethal limits, rainbow trout)
- Theragra chalcogramma* (see Pollock, walleye)
- Thermal plumes  
 J 36(4) : 366 (temperature effects, acclimatization, rainbow trout, L. Michigan)
- Thermal pollution (see Pollutants; Pollution; Pollution effects)
- Thermoregulation  
 S 2634 (fry, Atlantic salmon)
- Tidal energy  
 J 36(10) : 1197 (environmental effects, sublittoral zone, benthos, Bay of Fundy)
- Tidal power  
 T 822 (environmental effects, bibliographies, Bay of Fundy)  
 S 2599 (power plants, environmental effects, Cumberland Basin, Bay of Fundy)
- Tilapia* spp. (see Mouthbrooders)
- Time series analysis  
 J 36(1) : 54 (catch statistics, population structure, striped bass, NW Atl.)  
 (5) : 568 (chlorophylls, water temperature, covariability, St. Lawrence R. estuary)  
 (10) : 1223 (seiches, mathematical models, Port San Juan, Vancouver I., B.C.)  
 D 116 (wind-driven currents, NE Pac.)  
 S 2594 (chlorophylls, quantitative distribution, phytoplankton)
- Tissue culture  
 J 36(4) : 458 (chromosomes, kidney, conger eel)
- Toxicants; Toxicity; Toxicity tests  
 J 36(1) : 77 (diets, dieldrin, rainbow trout)  
 (2) : 164 (chemical compounds, sublethal effects, fathead minnow, rainbow trout)  
 (3) : 321 (life history, benthic invertebrates)  
 (4) : 411 (analytical techniques, *Daphnia magna*, fathead minnow)  
 (5) : 579 (cadmium, *Asterionella formosa*, *Fragilaria crotonensis*)  
 (6) : 605 (ozone, rainbow trout)  
 (6) : 615 (naphthalene, salinity, osmoregulation, mummichog)  
 (6) : 621 (ammonia, rainbow trout)  
 (8) : 1006 (bromine compounds, marine organisms)  
 (9) : 1129 (chromium, molting, *Daphnia pulex*)  
 (9) : 1141 (nitrite toxicity, inhibitors, chloride, channel catfish)  
 (11) : 1297 (cadmium, temperature effects, rainbow trout)  
 T 818 (toxicity workshop, aquatic environment)  
 846 (bioassays, sodium pentachlorophenate)  
 847 (copper, osmoregulation, growth, sockeye salmon, Babine L., B.C.)  
 862 (toxicity workshop, aquatic environment)  
 892 (copper, bioassays, pH, *Hyalella azteca*)  
 M 1478 (2,4-D, rainbow trout, Okanagan L., B.C.)  
 D 127 (monitoring, shellfish, Maritime Provinces)  
 S 2530 (fenitrothion, larvae, caddis fly)  
 2531 (insecticides, rainbow trout)  
 2574 (cadmium, bioaccumulation, brook trout)

- 2587 (methoxychlor, aquatic invertebrates, Athabasca R., Alta)
- 2590 (phenols, bioassays, rainbow trout)
- 2591 (algicides, copper, eutrophic lakes, Erickson-Elphinstone, Man.)
- 2615 (alkylhydroxamic acid, brook trout)
- 2631 (creosote, lethal limits, American lobster, sand shrimp, N.B.)
- 2632 (phosphamidon, methidathion, American lobster)
- 2633 (aromatics, lethal limits, soft-shell clam, sand shrimp)
- 2637 (PCBs, hatching, eggs, Atlantic salmon)
- 2638 (pyrethroids, lethal limits, Atlantic salmon, American lobster)
- 2640 (lethal limits, mathematical models, fishes)
- 2646 (insecticides, temperature effects, lethal limits, rainbow trout)
- 2647 (zooplankton, phytoplankton, *Gonyaulax*, Bay of Fundy)
- 2649 (pentachlorophenol, American eel)
- 2651 (fenitrothion, soft-shell clam, blue mussel, freshwater clam)
- Toxins (see Poisons (biological))
- Trace elements
- J 36(3) : 270 (freshwater fishes, S.C.)
- S 2535 (fish oils, Atlantic herring)
- 2635 (heavy metals, pollution monitoring, indicator species, field horsetail)
- 2652 (mud, spectroscopic techniques, marine environment)
- Transportation
- A 401 (environmental effects, estuaries, Pac. region, Canada)
- Trap fishing
- T 876F (Atlantic herring, Magdalen Is., Gulf of St. Lawrence)
- M 1521 (exploratory fishing, potential resources, spot prawn, B.C.)
- 1530 (manuals, juveniles, salmonids, B.C.)
- S 2580 (baited traps, rock crab, Pac.)
- Trawling; Trawls
- J 36(7) : 800 (foreign fleets, fishery regulations, fishery management)
- T 888 (midwater trawls, sockeye salmon, lakes, B.C.)
- M 1517 (exploratory fishing, sablefish, by catch, Pacific ocean perch, arrowtooth flounder, Vancouver I., B.C.)
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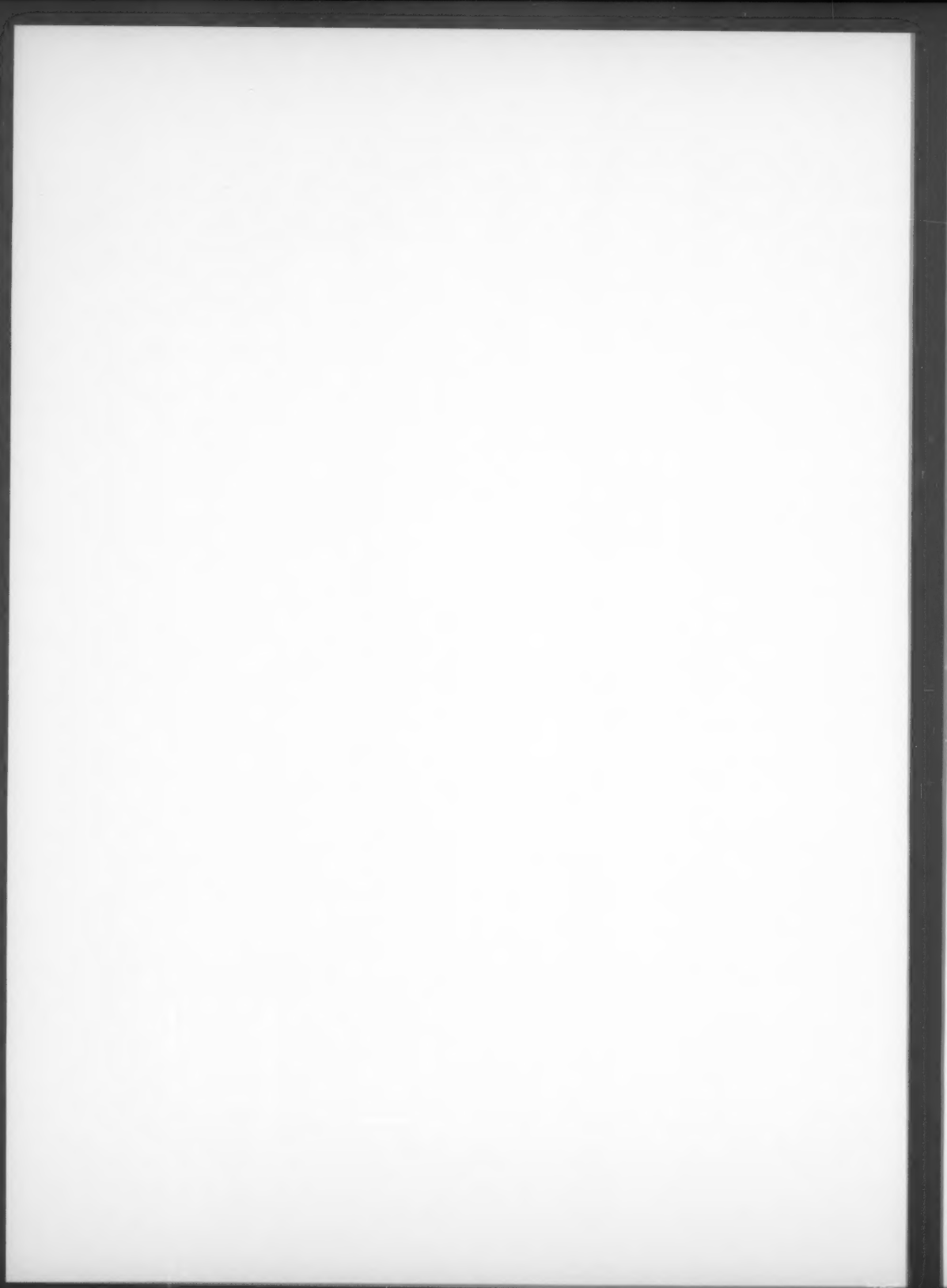


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861. Aro, K. V. 1979. Transfers of eggs and young of Pacific salmon within British Columbia. 147 p. (1)
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864. Whyte, J. N. C., and J. R. Englar. 1979. Agar elaborated by *Gracilaria* sp. from the coast of British Columbia. Part II. Variations in agar quality with season and reproductive condition of the alga from Haines Island. 23 p. (2)
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# MANUSCRIPT REPORTS/RAPPORTS MANUSCRITS

## Abbreviation/Abréviation: M

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Numbers 1440, 1450, 1456, 1464, 1465, 1469 and 1470 were issued too late for listing and indexing in previous indexes. They are indexed herein. The numerals in parentheses at the end of each reference indicate the name of the establishment from which the information or the Report originated. See pages 1542 and 1543 for addresses corresponding to these numerals. Copies of Manuscript reports may be obtained from Micromedia Ltd., 144 Front Street West, Toronto, Ontario M5J 1G2.)

(REMARQUE: Ces rapports contiennent des renseignements scientifiques et techniques qui constituent une contribution importante aux connaissances actuelles mais qui, pour une raison ou pour une autre, ne semblent pas appropriés pour la publication dans un journal scientifique. Ils se distinguent des Rapports techniques par la portée du sujet et le lecteur visé; en effet, ils s'attachent principalement à des problèmes d'ordre national ou régional et la distribution en est généralement limitée aux organismes et aux personnes de régions particulières du Canada.

Les numéros 1440, 1450, 1456, 1464, 1465, 1469 et 1470 sont sortis trop tard pour les inclure dans les index antérieurs. Le numéro entre parenthèses, à la fin de chaque référence, indique l'établissement d'où provient la documentation du rapport. Voir aux pages 1542 et 1543 les adresses

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1478. Pearce, B. C., and J. McBride. 1978. A preliminary investigation of the effect of 2,4,-dichlorophenoxyacetic acid (butoxy ethanol ester) on juvenile rainbow trout. 14 p. (12)
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## Abbreviation/Abréviation: D

(NOTE: These reports provide a medium for filing and archiving data compilations where little or no analysis is included. Such compilations commonly will have been prepared in support of other journal publications or reports. The subject matter of Data Reports reflects the broad interests and policies of the Fisheries and Marine Service, namely, fisheries management, technology and development, ocean sciences and aquatic environments relevant to Canada.

Numbers 59, 60, 86, 87, 91, 93, and 94 were issued too late for listing and indexing in previous indexes. They are indexed herein. The numerals in parentheses at the end of each reference indicate the name of the establishment from which the information or the Report originated. See pages 1542 and 1543 for addresses corresponding to these numerals. Copies of Data Reports may be obtained from Micromedia Ltd., 144 Front Street West, Toronto, Ontario M5J 1G2.)

(REMARQUE: Ces rapports servent de base à la compilation des données de classement et d'archives pour lesquelles il y a peu ou point d'analyse. Cette compilation aura d'ordinaire été préparée pour appuyer d'autres publications ou rapports. Les sujets des Rapports statistiques reflètent la vaste gamme des intérêts et politiques du Service des pêches et de la mer, notamment gestion des pêches, techniques et développement, sciences océaniques et environnements aquatiques, au Canada.

Les numéros 59, 60, 86, 87, 91, 93 et 94 sont sortis trop tard pour les inclure dans les index antérieurs. Le numéro entre parenthèses, à la fin de chaque référence, indique l'établissement d'où provient la documentation du rapport. Voir aux pages 1542 et 1543 les adresses correspondant à ces numéros. On peut se procurer des exemplaires de Rapports statistiques auprès de Micromedia Ltd., 144 Front Street West, Toronto, Ontario M5J 1G2.)

59. Moores, R. B. 1978. Fishway and counting fence data - 1975 and 1976. 64 p. (9)
60. Moores, R. B., and R. J. Tucker. 1978. Atlantic salmon angled catch and effort data, Newfoundland and Labrador, 1977. 180 p. (9)
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99. Leaman, B. M., D. Davenport, W. R. Harling, D. A. Nagtegaal, W. A. Ostermann, J. R. Selsby, and G. A. Thomas. 1978. Biological observer coverage of foreign fisheries off Canada's Pacific coast, 1977. 33 p. + 16 reports. (1)
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101. Moshenko, R. W., L. W. Dahlke, and G. Low. 1978. Data from the commercial fishery for lake whitefish, *Coregonus clupeaformis* (Mitchill), on Great Slave Lake, Northwest Territories, 1977. 30 p. (4)
102. Moshenko, R. W., and G. Low. 1978. An experimental gillnetting program on Great Slave Lake, Northwest Territories, 1977. 51 p. (4)
103. Moshenko, R. W., and D. V. Gillman. 1978. Data on the biology of lake trout *Salvelinus namaycush* (Walbaum), from Great Bear and Great Slave lakes, Northwest Territories, 1974. 12 p. (4)
104. de March, L., and D. G. Rudy. 1978. Precipitation and water chemistry at Saqvaquac, N.W.T. (60°39'N 90°39'W): 1977 data. 8 p. (4)
105. Gray, R. W., J. D. Cameron, and E. M. Jefferson. 1978. Population densities of juvenile Atlantic salmon in several Nova Scotia streams. 53 p. (8)
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107. Haegele, C. W., and R. D. Humphreys. 1978. Data record for 1978 herring spawn samples. 33 p. (1)
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111. Schmidt, R. V., M. C. Healey, F. P. Jordan, and R. M. Hungar. 1978. Data Record: Juvenile salmon and other fish species captured in intertidal areas near Nanaimo, 1975-1976. 51 p. (1)
112. Shaw, W., R. M. Wallis, F. W. Mottl, and S. J. Westrheim. 1978. Freeport groundfish cruise no 78-1 (July 21 - August 11, 1978). 34 p. (1)
113. Harling, W. R., J. J. Fargo, J. C. Blackburn, and A. Thieffry. 1978.

- Trawling survey for Dover sole off northwest Queen Charlotte Islands, (*G. B. Reed* cruise no. 78-6), July 28-August 10, 1978. 27 p. (1)
114. Irwin, B., P. Evans, and T. Platt. 1978. Phytoplankton productivity and nutrient measurements in the Labrador Sea, from 11 February to 28 February 1978. 38 p. (7)
115. Marshall, D. E., R. F. Brown, M. M. Musgrave, and D. G. Demontier. 1979. Preliminary catalogue of salmon streams and spawning escapements of Statistical Area 29 (New Westminster). 73 p. (12)
116. Ballantyne, A., and W. P. Wickett. 1978. Time-series of computed wind-driven transports at selected positions in the northeastern Pacific Ocean. 85 p. (1)
117. Peppar, J. L., and P. R. Pickard. 1979. Juvenile Atlantic salmon densities, Restigouche River System, New Brunswick, 1972-78. 17 p. (8)
118. Shaw, W. 1978. *Heidi-J* and *Nore-Dick* groundfish cruise no. 78-1 (July 21 - August 11, 1978). 55 p. (1)
119. Schmidt, R. V., M. C. Healey, F. P. Jordan, and R. M. Hungar. 1978. Data Record: Juvenile salmon and other fish species captured by 50-fathom purse seines in nearshore areas near Nanaimo, 1975. 136 p. (1)
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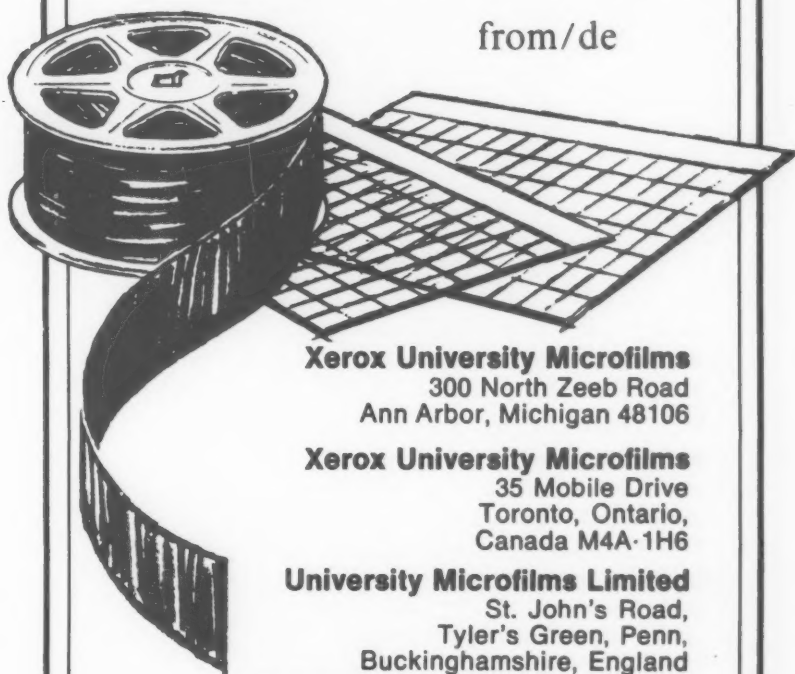
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